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AN
ACCOUNT
OF A
GEOGRAPHICAL AND ASTRONOMICAL
EXPEDITION.

TO THE
NORTHERN PARTS OF RUSSIA.

THE
ACCOUNT
OF
GEOGRAPHICAL AND ASTRONOMICAL
EXPLORATION

NORTHERN PART OF RUSSIA

Jas. H. B. B. B.

AN
A C C O U N T
OF A
GEOGRAPHICAL AND ASTRONOMICAL
EXPEDITION
TO THE
NORTHERN PARTS OF RUSSIA,

FOR ASCERTAINING THE DEGREES OF LATITUDE AND LONGITUDE OF
THE MOUTH OF THE RIVER KOVIMA;
OF THE WHOLE COAST OF THE TSHUTSKI, TO EAST CAPE;
AND OF THE ISLANDS IN THE EASTERN OCEAN, STRETCHING TO
THE AMERICAN COAST.

PERFORMED,

By Command of Her Imperial Majesty *CATHERINE THE SECOND*,
EMRESS OF ALL THE RUSSIAS,

BY COMMODORE JOSEPH BILLINGS,

In the Years 1785, &c. to 1794.

THE WHOLE NARRATED FROM THE ORIGINAL PAPERS,

BY MARTIN SAUER,

SECRETARY TO THE EXPEDITION.

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BY MARTIN BAUER.

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TO

THE RIGHT HONOURABLE

SIR JOSEPH BANKS, BARONET,

A KNIGHT COMPANION OF THE MOST HONOURABLE ORDER OF THE BATH;

A MEMBER OF THE KING'S MOST HONOURABLE PRIVY COUNCIL;

PRESIDENT OF THE ROYAL SOCIETY,

&c. &c. &c.

THIS WORK

IS,

WITH GREAT DEFERENCE AND RESPECT,

INSCRIBED,

BY

HIS MUCH OBLIGED,

MOST GRATEFUL,

AND OBEDIENT SERVANT,

MARTIN SAUER.

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P R E F A C E.

THE extraordinary discoveries of the ever-memorable circumnavigator Cook inspired all Europe with an enthusiastic desire of being acquainted with the parts of the globe still remaining unknown. Russia, though more interested in these events than any other Power, being engaged in different pursuits, did not consider the distant and barren regions belonging to her own Empire as of sufficient importance to justify the expence and trouble of exploring them; until the genius of the country was completely roused by the animating intelligence communicated in the "Account of the Russian Discoveries between Asia and America, by the Reverend William Coxe," which the late Catherine the Second commanded to be translated for her own perusal, although the original Papers were in the Archives of the Admiralty at St. Petersburg *.

* I am happy to find, that the author has collected very considerable materials for an enlarged edition of this work; which it is hoped he will not long withhold from the public, as the book is out of print, and cannot be procured.

The Court of Russia was astonished at the discoveries already made, by its own roving subjects, of islands, and of a continent, of which latter it had indeed an idea, but not the smallest notion of its extent or proximity to its own territories, and only supposed that it might be America. However, these voyagers did not ascertain the geographical situations of places, nor explain the advantages that they offered to the country to which they belonged; nor, in short, any thing more than their mere existence.

The amazing extent of dominion acknowledging the sovereignty of Russia, independent of her late acquisitions by conquest, became now the fashionable topic of conversation at Court. Mr. Coxe, being at St. Petersburg, took advantage of the favourable moment to suggest an Expedition, to complete the geographical knowledge of the most distant possessions of that Empire, and of such northern parts of the opposite continent as Captain Cook could not possibly ascertain. The learned Dr. Pallas, then in great favour, undertook to make the necessary representations to Her Imperial Majesty, who, well pleased with the hint, immediately approved of the plan drawn out by these two Gentlemen; and Count Besborodko was, in consequence, ordered to prepare a Mandate for the Admiralty: this was in the autumn of the year 1784. Mr. Billings, who had just received a Lieutenancy, said, that he had been the

Astro-

Astronomer's Assistant in Captain Cook's last voyage; and he was therefore thought a proper person to conduct the enterprise.

Matters remained thus till the French Papers announced the departure of Count de la Perouse, in July 1785, on a voyage of discovery. Upon this, the undertaking was resumed with energy; and on the 8th August following, an Ukaze, or Mandate, signed by the Empress, was sent to the Admiralty; on which were founded the INSTRUCTIONS to CAPTAIN BILLINGS, given in the APPENDIX to this Volume, No. V.

Every thing was procured that appeared likely to contribute to the success of the enterprise; every imaginable encouragement was awarded to all the officers and men; and orders were sent to the Governors, Commanders, &c. throughout the vast extent of Siberia, to give all possible assistance.

Captain Billings had permission to select his own officers, and to take such hands as he judged necessary.

I was personally acquainted with Doctor Pallas and Mr. Billings, both of whom requested that I would accompany the Expedition as Private Secretary and Translator; and, on receiving the

promise of permission to publish my remarks upon my return, I agreed.

On the 10th March 1794 I returned to St. Petersburg, in a very critical state of health, which continued impaired during the whole of the following summer, and induced Doctor Rogers (now in London), the Doctor (Merck) and Surgeon Major (Robeck) of our Expedition, to form an opinion, that the severity of a Russian winter might prove of bad consequences; and they recommended my visiting a milder climate for a short time. In consequence of this professional opinion, I petitioned Captain Billings, conformably to the established rules of the service; requesting him to represent my situation to the Admiralty, and to procure me leave of absence for about four months. This was on the 2d of September 1794; and on the 5th of the same month, TOWARD MIDNIGHT, *I received a very unexpected and unfavourable* ANSWER. It is not my intention, however, to enumerate hardships, or make a merit of sufferings; but to give the best account I can of such occurrences as immediately concern the Expedition, and as appear to me most likely to interest my Readers.

In the mean time I embrace this opportunity of acknowledging my great obligations to the undermentioned Gentlemen, then inhabi-

inhabitants of St. Petersburg, for the particular marks of friendship which I received at their hands.

William Porter, Esq.

Mr. William Jones.

Mr. Alexander Grant.

Mr. Laurence Brown.

Thomas Warre, Esq.

William Wilson, Esq.

Alexander Shairp, Esq.

John Booker, Esq.

Doctor Simpson.

Doctor Guthrie.

Mr. John Samuel Barnes.

— John Venning.

— William Glen Johnston.

— John Glen Johnston.

— Edward James Smith.

Upon my arrival in London, however, I experienced no less generous treatment. M. Garthshore, M.D. F.R.S. and A.S. has my sincere thanks for his protection; as also the Reverend William Coxe, and the Reverend London King Pitt.

Thomas Harvey, Esq. who particularly assisted me in Russia, has still heaped obligations upon me here; as have also Charles Grant, Esq. and Doctor Rogers.

My warmest acknowledgments are likewise due to James Gibson, Samuel Stratton, and John Rowlatt, Esqrs. for their friendship and recommendation.

The many kindnesses received from Mr. William Lotherington, and Mr. Edmund Rodd, my fellow-traveller from Russia, will remain indelible in my remembrance.

During my travels, I was frequently necessitated to make notes on small pieces of paper; those I have faithfully transcribed; but in some instances I have been obliged to refer to memory; which circumstance, added to the obliterated state of several outlines traced with a black lead pencil, would have prevented my giving a chart of the two continents, had not Mr. Arrowsmith requested to see my remarks, which he compared with former discoveries in these parts; and, observing that the corresponding distances (particularly Shalauoff's chart) agreed with Captain Billings's astronomical observations in the Icy Sea, as did also the sketches of the natives, it plainly appeared to him, that he could venture to lay down the Shalatkoï promontory, and the whole coast between the eastern promontory of Asia and the Kovima with

tolerable exactness ; which proves the general fault in the Russian charts, where the coast is carried considerably too far north. The situation of the islands between the two continents, as laid down in the chart, may be pronounced just ; but I feel myself infinitely obliged to Mr. Arrowsmith for the pains he has taken. I am equally sensible of Mr. Alexander's merit in the judicious arrangement of the drawings and costumes, which has enabled me to present the Engravings, exact in their resemblances, and executed in a manner highly pleasing to myself. While indulging my own sensations in paying the tribute of respect and gratitude to those who have befriended me, I ought not to overlook the kindness and liberality which I have experienced from my Publishers ; but, as I am persuaded that their behaviour to me is merely the ordinary course of their professional practice, I shall restrain my feelings, and avoid the risk of offending them by being more particular.

Upon mature deliberation on the extent and tendency of this Work, I think it necessary to call publicly on the Commander of the Expedition, and my brother officers, to correct any mistakes in my narrative *, or to elucidate such intricacies as may have

* My narrative of the voyages is taken from the journal written for Captain Billings, which I copied from the ship's journal kept by the Master Batakoff and his mates. I am apprehensive, that some of the bearings are not perfectly correct ; and I acknowledge that in many places I am not capable of saying whether the computed distances are geographical or German miles ; both measures having been used by the original journalists.

arisen from my want of knowledge in the different branches within the limits of their professional studies. My object has been to travel with my eyes open, and to relate what I have seen in the simple language of truth.

Feb. 1802.

EXPLANA-

EXPLANATIONS

OF

Russian and other Foreign Words made use of in the following Work.

BAIDAR; a term used at Ochotsk, Kamtschatka, &c. for boats, whether large or small. They are pointed at both ends, and constructed as follows: A keel and three frames, the lower to form a flat-bottom, the second to support the thwarts, and the third to serve for the gunnel; light knees and ground timbers are lashed to the keel and the frames with whales' fins: The raw hides of sea-animals are drawn over, to serve instead of sheathing. They draw only a few inches water, carry a considerable burthen, are excellent surf-boats, and very useful in coasting excursions; as four men can carry one of them which admits of twelve rowers; at night they are turned keel upwards, and serve instead of tents. The smaller are quite covered, leaving only one, two, or three openings for the rower.

BAZAR, or RENOK; a market for vegetables, hard and wooden ware, &c. Any person is permitted in these places to hawk about old clothes, or whatever they may have for sale.

CAMLEY, or KAMLEY; a garment in shape like a carter's frock, made of the intestines of marine animals, of linen, nankeen, or leather.

GORODNITSHIK; the mayor of a town.

GUBA; a bay.

KAMEN; a barren mountain; also a rock at sea.

KREPOST; in Russia, means a regular fort; but in Siberia, Kamtschatka, and the islands, it is used for any place walled in; and is a name frequently given to a place which was intended to have had a fortress; as Petro Pavloffsky Krepost, or the fort of St. Peter and St. Paul.

LAI, or LAIDENOI BEREG; a rocky shore covered at high water.

MAMMONTS' TUSKS are found about the Siberian rivers and the shores of the Icy Sea, and scattered all over the arctic flats. They are full as large as those of the elephant, much more curved, and perhaps equal in quality. It appears that the animal is extinct.

MUYS,

MUYS, or MYs; a cape.

NOSS; a promontory.

OSTROG; a square inclosure of palisadoes, about eight feet high; replete with holes to point muskets through: it generally has four entrances, with a tower upon each.

OSTROV; an island.

OZER, or OSER; a lake.

PARK; a garment made like the camley, but only of the skins of animals with the hair on, or with those of birds with the feathers.

PEREDOFSHIK; a leader.

POLOG; a low tent used in a larger to sleep and sit in; also a thin covering over a bed to keep away flies and mosquitoes.

POOD; a Russian weight of forty pounds, equal to thirty-six pounds English.

PRISTAN; a landing-place for goods.

PROMYSHLENIK; a hunter.

QUASS; a fermented liquor of plants, berries, roots, or meal, used as a drink.

REKA; a river.

RETSHKA; a rivulet.

SAZSHEN; a fathom of six feet.

SHEETIKI, or SHITIKI; a large boat sheathed with plank, which is fastened to the timbers with twisted oziers; the interstices are stuffed with moss, instead of caulking; and the seams are covered with laths of about two inches wide, to prevent the washing out of the moss; these are inclosed in the oziers. The name implies *sewn*, as they are made without nails or pegs.

SLOBODA; a large village with a church.

SOPKA; a peaked mountain.

TOION, or TOYON; the Yakut name for chief, applied to the chiefs of all the heathen nations.

UST, or OOST; the discharge of a river.

UTSHENIK; a learner.

VERST; a Russian mile, $104\frac{1}{2}$ to a degree.

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* The original from which this representation was taken did not come within my own observation; it is, therefore, not explained in my narrative.

It is a piece of wood to which the claws of the Morzsh are fastened; the hunters, covering themselves with the skin of the head of the Morzsh, make a scratching noise on the ice with this instrument; the Morzsh approaches it, when the hunter takes his lance, and, throwing off the mask, springs suddenly upon the Morzsh, and stabs it.

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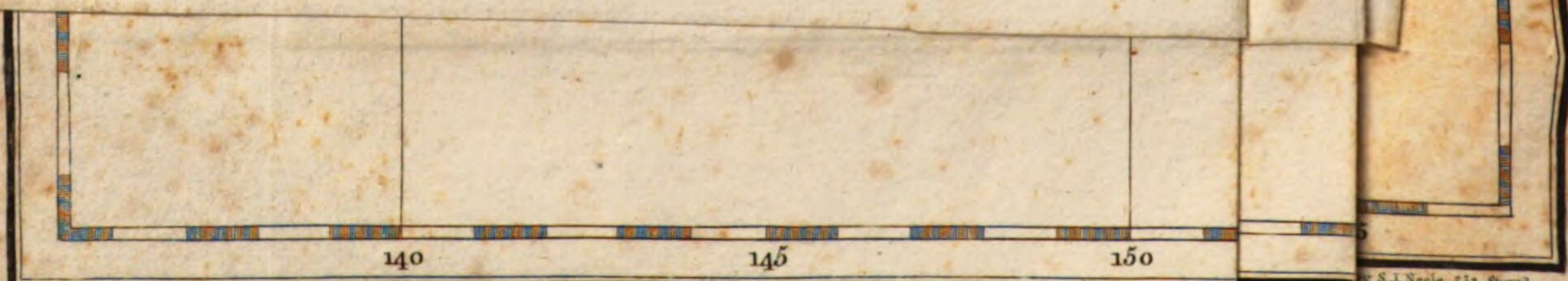
* The armour is made either of lathwood, with thin bone, or if they can obtain them, iron hoops in preference ; they are fastened together with the sinews of seals, so that they will bend both ways, and are covered over with leather, which is bound on with thin slips of whalebone, which gives it the appearance of so many hoops. They are replete with loops and buttons, upon which they hang their bow, arrows, &c. ; the upper part occasionally lets down.

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ACCOUNT OF AN EXPEDITION,

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CHAP. I.

Departure from St. Petersburg.—Occurrences on the way to the City of Irkutsk.

IN consequence of a mandate signed by the late Empress of Russia, Catharine II. directed to the College of Admiralty, and dated 8th August 1785, appointing Captain-Lieutenant Joseph Billings to the command of “A Secret Astronomical and Geographical Expedition for navigating the Frozen Sea, describing its Coasts, and ascertaining the Situation of the Islands in the Seas between the two Continents of Asia and America, &c.*” the Admiralty confirmed the officers chosen by the commander, and supplied astronomical and nautical instruments, the charts and journals of all former navigators from the year 1724, and every other article considered as necessary.

* See the Introduction.

Early in the month of September, Lieutenant Saretsheff was dispatched direct to Ochotsk, with our ship-builder and his assistant, to select and fell proper trees for constructing two ships, according to a plan of Mr. Lamb Yeames, ship-builder, in which he had considered the best means of accommodating the officers and crew. The injunctions laid on Captain Billings to explore the rivers and the inland country of Siberia, prevented our going by sea from St. Petersburg; besides, the ships were to remain as transport vessels, or armed cruisers, in those seas.

Lieutenant Saretsheff had orders to the Governor-General of Irkutsk and Kolivan, apprising him of the purport of the expedition, and requiring his positive commands to the Governor of Ochotsk to supply men and necessaries to forward the business.

The whole party was sent off in small detachments by the middle of October; on the 25th day of the same month, 1785, I departed from St. Petersburg, with Captain Billings and our surgeon, Mr. Robeck, at eight o'clock in the evening, in very rainy and windy weather; which made the roads so indifferent, that we did not reach Mosco till the 5th of November at eight o'clock in the morning. I forbear to make any remarks respecting the road, the villages, &c. as every circumstance is well described by Mr. Coxe; my intention is, to be more particular when I arrive at places less known.

In this city Lieutenant Hall, the second in command, was ordered to wait the arrival of Captain Billings; the other parties proceeded by Kazan to Irkutsk.

We

We purchased a great number of articles necessary for our travels; received medicines for the use of the expedition, from the Government General Repository of Drugs; and forwarded our baggage to Kazan by Lieutenant Hall, who left Mosco the 10th of December; and on the 15th, at four o'clock in the afternoon, Captain Billings proceeded with our head surgeon, (Mr. Robeck,) Sturman Batakoff, and myself, attended by soldiers in carriages and on sledges.

The road was barely covered with snow; and on the 18th we arrived at Paulova, containing about 2500 houses, some few very elegantly built of brick, and five churches. This may be considered as the Birmingham of Russia, and is, with all its inhabitants, the private property of Count Sheremetoff. The people are all manufacturers of hardware and traders, have an immense number of well built vessels, and carry on a very extensive trade in the Caspian Sea. This (Slobôda) large village is situated on the river Oka, near its discharge into the Volga. We here purchased knives, scissars, buttons, &c. as presents to the natives of such places as we might touch at in our voyage.

At the distance of 625 versts from Mosco we entered an oak wood, chiefly of middle-sized trees, near the Tsheremese village of Scartog, travelled 75 versts through it, and arrived on Monday the 22d of December, about eight in the evening, at Kazan, where we found our whole party in good health and spirits.

Kazan is a regular and well-built city on the river of the same name, three versts from its discharge into the Volga, and situated in latitude $55^{\circ} 43'$, and longitude $49^{\circ} 15'$ E. from Greenwich. The inhabitants, who are chiefly merchants, consist of Russians,

Tartars, and Armenians, and carry on a very considerable trade.

Numbers of noblemen reside here in the vicinity of their estates; and others, who find motives for retiring from the capital, also choose this city for their place of residence. We observed that the greatest harmony reigned among them, with unbounded hospitality, especially to us as travellers. It becomes us particularly to acknowledge the great kindness that we experienced from the President of the Admiralty and Director of the Dock Yard, Admiral Zhemtshuzhnikoff, whose house we made our head quarters and general rendezvous. This nobleman was in England about the year 1770, engaging transports for the Russian fleet under the command of Count Orloff, and was very much attached to the English. At his friendly mansion we ushered in the year 1786, and in our company he made a point of drinking the health of the King of Great Britain, and success to his fleets. The recollection of kindnesses that he received in England gave him enthusiastic pleasure, something, I believe, like what I feel at this instant on recollecting the favours that I received from him. His table was always profusely covered, and his wines were of the best flavour.

On the 6th of January, after attending the ceremonies of the day (as described by Mr. Coxe), we dined with the Governor. The strange mixture of his company I think worthy of notice. The bishop of Kazan (a very learned divine, a great friend to the poor inhabitants, and the founder of a school for their children), the Mahometan Chief Priest, a German Lutheran Priest, with several natives of Russia, England, France, and Italy; and, though the good humour of the company was not increased by the

the luxury of the table, or the excellence of the wines, it did not suffer by any reflections on our host's want of generosity.

All the necessaries and some of the luxuries of life are in great plenty in this city, and at a very moderate price.

The command was dispatched from hence as follows :

1st Party, 31st December, 6 Kibitki sledges.

2d ——— 2d January, 6 Do.

3d ——— 4th Do. 6 Do.

4th ——— 7th Do. 6 Do.

with orders to make the best of their way to Irkutsk.

On the 9th of January Captain Billings reported to the Admiralty the state of his command, and requested a fresh supply of barometers, every one that we had with us being broken, owing to the bad state of the roads. One of our medicine chests also broke through the ice in crossing the Volga, which spoiled a great part of the contents ; and these, of course, our surgeon required to be replaced and sent to Irkutsk.

On Saturday the 10th we left Kazan: the roads were now good, and well covered with snow. At the distance of 18 versts we entered a wood of very fine oak *, through which we travelled 34 versts. The face of the country continued hilly and moderately wooded with fir, common pine, and birch. The in-

* On my return by this road, in January 1794, I was surprised at seeing the country cleared of every tree, and lying waste ; not even a bush being to be seen ; which was pretty much the case with the wood near Scartog on the other side of Kazan.

habitants are Russians, Tartars, and Votiaki. The Tartars are Mahometans, and very clean in their persons and habitations. The women are, in general, very handsome, and dress extremely neat. They are industrious, honest, and peaceable; and, under their management, a piece of ground of a given extent will produce nearly twice as much as the Russians obtain from an equal quantity. All the villages are built in vallies on the borders of rivers, surrounded with gardens and cultivated fields.

On Monday the 15th we reached Kungur, a city containing 1800 wooden houses on the east side of the river Tulva, latitude $57^{\circ} 20'$, longitude $56^{\circ} 50'$ E. 2160 versts from St. Petersburg: and here the Virchoturien mountains commence.

Atchinsky Krepost, on the confines of Siberia, is 88 versts beyond Kungur; and in this neighbourhood are the iron works of the different rich proprietors living in St. Petersburg, &c. The inhabitants appear particularly strong and healthy; their houses are very clean; and I saw several men who were not very infirm at between 80 and 90 years of age. The woods that we had hitherto passed consisted of fir, common pine, poplar, asp, and birch: here we observed also the larch pine.

On the 17th January we arrived at the famous city of Ekaterineburg, on the Uralian chain, through which the river Isset flows, and works the gun, anchor, and iron foundries, saw and coining mills, and lapidary, &c. belonging to Government. This city stands in latitude $56^{\circ} 50'$, longitude $60^{\circ} 17' 10''$, and contains about 2000 houses, some very elegantly built of stone, five churches, schools, &c. Provisions are here extremely cheap; fish, sturgeon, beluga, and large quabs (nalime) 20 copeaks the pood, beef
50 cop.

50 cop. rye flour 32 cop. * The last article, they said, was very dear, having had but a scanty growth for the last three years. The poorer sorts, and convicts, of which only a few work at the mines, find a plenteous and cheap supply of the salted omul, which appears to me to be a species of herring, but twice as large as the ordinary sort. The circumjacent mountains afford much interesting entertainment to a naturalist, whose researches are frequently rewarded with new discoveries of variations in the works of nature. Exclusive of minerals and malachites (the largest ever heard of was found here, weighing 107 poods, or 3852 pounds weight,—Pallas), here may be seen an astonishing variety of white rock crystal, with capillary shörl of different colours; that with the red was called by Pallas the hair of Venus; the green was named by Guthrie Thetis's; the flaxen, Cupid's; the black, Proserpine's; and a dark topaz, containing white shörl, Saturn's hair; amethyst, topaz, the Siberian diamond, jasper striped and plain, porphyrys, &c.

We now found the face of the country more level, and the woods very much on the decrease, and pretty well inhabited by Tartars and Russians; the former of whom, besides cultivating the earth, make and sell very neat worsted carpets.

On Thursday the 22d we arrived at Tobolsk †, containing 2300 houses and 23 churches, chiefly of wood, latitude $58^{\circ} 12' 20''$, longitude $67^{\circ} 19' 10''$, opposite the discharge of the Tobol

* A copeak may be reckoned about a farthing; a pood is 36 pounds.

† This city was reduced to ashes in the year 1787; but on my return (in 1794) it was rebuilt on a regular plan; the streets wide, with churches, and a great number of houses, of brick. Its situation is low, backed by a rising ground which projects over the Irtysh; and the fortress is built on its point.

into the Irtysh. It is a place of very considerable trade, frequented by Samoyeds, Tartars, Russians, and Siberians; and provisions here are rather cheaper than at Ekaterineburg.

I observed that we had now crossed the whole of the Uralian chain of mountains.

Bad weather detained us here three days, during which short stay we experienced the hospitality of the Governor General Kaskheen.

On Sunday the 25th we left Tobolsk, and found the country low, marshy, and woody, but well inhabited as far as the Desert of Baraba (Barabinsky Step), situated 3512 versts from St. Petersburg, and 570 versts in extent. This was not inhabited, but the Empress about ten years ago built villages all over it at the distance of 20 to 25 versts. The whole extent almost is low and boggy; some elevated spots, however, produce stunted birch, brushwood, and a little grass. The western half is well watered by the lake Kamyshova, the rivers Om, Tartas, and Kain. The latter is about the midway; and here the town of Kainak is built for the protection of travellers. It contains 125 houses and a church, all of wood. The inhabitants of all the villages are convicts. The eastern half of the desert is almost destitute of wood; nor is there any water, except in ponds, fetid even at this season. Wells are dug, but these prove salt and bitter. The people, therefore, melt snow in winter, and collect rain in summer. The most extreme poverty, dirt, and misery prevail over the whole desert, which is terminated by a rising ground, where Nature suddenly assumes the most luxuriant change, presenting a woody country, replete with meadows, corn fields, and well built

built villages, inhabited by clean, healthy, and affluent Siberians.

On the 4th of February we reached Tomsk, a city containing about 1500 houses (latitude $56^{\circ} 29'$, longitude $85^{\circ} 3'$), on the river Tom. Here we saw Mr. Patrin, the gentleman appointed by her Imperial Majesty, on the recommendation of the very learned Dr. Pallas, to accompany our travels as naturalist and botanist. He was on his return to St. Petersburg, with a view of retiring to France on account of his health, the state of which rendered his longer residence in these parts dangerous, and bereaved us of an invaluable companion.

The inhabitants of these parts are farmers, graziers, and carriers; and have a famous breed of horned cattle, with which, as well as with butter, they supply all the northern and eastern districts of the empire. They are wealthy, hospitable, healthy, and clean, and live under no controul of individuals, only paying a trifling sum to the Captain of the district, for Government. The Siberians throughout are more industrious and independent than any Russian peasants, live more comfortably, and drink home-brewed beer in addition to quafs. The women are remarkably clean; and I never entered any house in travelling, night or day, but I found them spinning flax. I have frequently asked them why they worked all night; and always received one general answer, "that the days were short." Instead of candles, they burn laths of birch wood, which they call lutshinka; a portable stick, about five feet high, with a foot to it, serves as their candlestick; three nails are driven into the top, forming a triangle; the lath is stuck between the nails obliquely, and burns about four or five minutes: but when they have guests they burn a candle, the nails serving as a socket.

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Their

Their neighbours, to the south-east, are some tribes of Mongals extending to China; and a private trade is carried on, through this channel, by a few of the more intelligent Siberians.

On the 14th February we arrived at Irkutsk, in a frost of 18° of Reaumur, and found all the Command safe. The Governor General Jacobi being absent, a courier was dispatched to him at Barnaul, to inform him of our arrival.

On the 15th, in the morning, the thermometer indicated 28° below 0 of Reaumur for about two hours, when it rose to 20° and 18° : 30° is the greatest extremity of cold ever remembered here.

CHAP. II.

A succinct Account of our Transactions at the City of Irkutsk—State of our Command—Additional Hands taken there.

WE were now arrived in the capital of Siberia, and entering on the first scene of real business, of a nature more extensive than this city ever before experienced. Every necessary article for constructing two ships of 85 feet keel was to be received here, except timber: iron, cordage, ammunition, provision, liquor, stores; clothing from head to foot, on a moderate computation, for five years; candles, soap, and every the most trifling commodity necessary for each individual officer, over and above the ordinary allowance for a Command of three hundred men, to be transported by water and land upwards of four thousand versts. It was likewise necessary to stow every article in the most secure method in packages, weighing only $2\frac{1}{2}$ poods each, or 90 pounds English weight, to facilitate their transport on pack-horses from the city of Yakutsk, both to Ochotsk and to the river Kovima, where we had to build a vessel of 50 feet keel, with boats and baidars, for navigating the Icy Sea.

No time was lost in ordering the instruments in very great abundance, with an extra number to serve as presents to savages. Some hands were sent, under the command of an officer, to build vessels at Katshuga Pristan, on the river Lena, to transport the command to Yakutsk, &c.

On the 26th of February we began to receive hatchets, hammers, and every other instrument used by artificers in a dock-yard.

At half past three o'clock in the morning of the 3d of March, the city experienced a smart shock of an earthquake, which lasted about three seconds, but was not attended with any bad consequences. Earthquakes here are frequent, but not violent.

On the 5th the courier returned from the Governor General, with orders for the Governor to comply with all the demands of the expedition. To forward the business, Captain Billings increased his Command, agreeable to his instructions. From St. Petersburg it consisted of,

Captain Joseph Billings, Commander ;

—— Robert Hall ;

—— Gabriel Santsheff ;

—— Christian Bering ;

Skipper Affanassy Bakoff, to rig the vessels, and take charge of all stores ;

Steerman Anton Batahoff, }
—— Sergey Bronnikoff, } Masters ;

Surgeon Mich. Robeck ;

—— Peter Allegretti ;

Drawing-Master Luke Varonin ;

A mechanic ;

Two under shipbuilders ;

Two surgeons' mates ;

One master's mate ;

One boatswain ;

Three

Three Court Yagers, for stuffing birds and beasts ;

Eight petty officers ;

Seven soldiers, Streltsi ;

And myself, as private secretary, and journalist :

In all thirty-six.

The following hands we engaged here :

Vaffiley Diakonoff, } for keeping accounts, and transacting the
Fedor Karpoff, } writing business for the command, in
Rufs ;

Lieutenant Polosoff, of the army ; [He had occupied a place of trust in Igiga, and was recommended as a useful hand among the Tshutski.]

Six petty officers from the Navigation School at Irkutsk ;

Three men for constructing leather boats, or baidars, for river navigation ;

One turner ;

One locksmith ;

Fifty Cossacs, and one Sotnik ;

Two drummers :

In all, sixty-nine, in addition to the St. Petersburg Command.

March 7.—The persons composing the Command were advanced a rank, agreeable to the Imperial mandate.

All hands were now employed in packing up instruments, &c. in boxes, which were afterwards covered with canvas, pitched all over, and sewn up in foal leather, to prevent water from spoiling the contents in time of rain, and in fording of rivers. The leather was ultimately designed for shoes and boots.

March

March 16.—The ice of the river Angara broke up, and we had fine and mild weather.

April 16.—The weather being favourable, Captain Billings erected his astronomical tent at the south-east extremity of the city; and, by many sets of observation of the sun's and moon's distance, his longitude proved $103^{\circ} 46' 45''$ east of Greenwich, latitude $52^{\circ} 16' 30''$.

Irkutsk contains 2500 houses, chiefly of wood, 12 stone churches, a cathedral, and two monasteries; beside which, there are several public buildings, an hospital, an inoculating house, a seminary for the study of divinity, a public school, a library and collection of curiosities; also a theatre, of which the performers are all young men and women natives of Irkutsk. The representations are chiefly confined to national pieces, which they get up with astonishing propriety; and they have very excellent musicians belonging to the different regiments, besides the band of the Governor General.

This city stands on a low spot of ground, opposite the discharge of the Irkut into the Angara. The latter river bounds it to the west; the Ooshakofka to the east and north-east; and to the south, high, pleasant, and fertile land.

The streets are straight and uniform. The shops are in the heart of the city, an elegant square pile of brick building, under piazzas which support warehouses. The butchers' shops are in the eastern extremity, where the slaughter-houses are built over the Ooshakofka. Near this is the fish-market; also a bazar, or renok, for vegetables, corn, bread, butter, flour, pedlary, and wooden ware.

The latter is a place of resort of the Burati, who hawk about fables, martins, otter, and other furs. I calculate the number of inhabitants at about 20,000. The merchants are numerous and affluent; and a considerable trade is carried on with the Chinese, which is so well described by Mr. Coxe, that all I can add to his remarks on the subject is, that the prices of articles are now about three times as high as when he mentioned them. Here the assortments of furs are made, which are brought from America, and the northern parts of the empire, in the following manner: The inferior and worst coloured fables, the fox skins, from the Aleutan islands; the second sort of sea otter, river otter, &c. are allotted to China*. Such as are defective and weak in the hair, as also inferior sorts, are sent to the fair at Irbit; and the very best are sent to Mosco and Makaria, where they meet with ready purchasers among the Armenians and Greeks.

The works belonging to this place are, a glass-house under the particular inspection of the learned Professor Laxman, situated near the Baikal lake; a distillery, about 60 versts north of the city, in which the annual average quantity of brandy made is 60,000 ankers; salt works at three springs, which supply the neighbouring country; a cloth manufactory, where eleven looms were in constant employ, but now only one is at work for very coarse cloth: this is the property of the merchant Siberakoff; the others belong to government.

On the 28th April, we began sending off the Command and articles to Katshuga Pristan; and by the 19th May all were dispatched from hence.

* The Chinese colour fables, and other furs, so artfully, that the deception is not observable: in consequence, they will only pay a low price, and always give articles of an inferior quality the preference.

Immediately on our arrival at Irkutsk, Professor Laxman offered to accompany the expedition as naturalist and botanist: Captain Billings, however, did not accept the offer; and it was only the day before his departure that he sent me to Dr. Merck (belonging to the hospital here) to ask if he would go with us in that capacity, which he immediately agreed to, but confessed that he was not a proficient. Mr. John Main, an Englishman (also a medical gentleman), volunteered to go as his assistant. Thus were matters settled; and all the necessary articles and books given by Professor Pallas for Mr. Patrin, were now ordered to the disposal of Dr. Merck, who left Irkutsk with us the very next day.

Before I quit this place, which, according to the information of my acquaintance, is the last of any consequence that I am likely to behold till my return, I shall attempt a summary sketch of its inhabitants, and their mode of living.

Lieutenant General Ivan Varfolomitsh Jacobi, Governor General, possessing the powers of Viceroy;

Major General Lamb, his Assistant Governor; and

Mr. Medvedeff, a very rich individual, keep open house, and give a dinner and ball each once a week. The remaining days are passed in visiting other opulent inhabitants, either in consequence of invitations, or in the way of friendly call. The set is never broken, though sometimes divided into several branches; but they are always united at every invitation. At dinner a band of music induces an harmonious circulation of the glafs.

The society established, and the liberal hospitality of the first order of inhabitants, is superior to that in any part of Russia, and really

really seems to infuse a spirit of consequence into the minds of the lower sort of people. I think that their schools and theatre contribute much to this; but most of all the tutors to the children of the more opulent. These generally consist of Poles, Swedes, French, and some of the Jesuitic order, who have been under the necessity of travelling.

Numbers of mechanics, artists, and artificers of great abilities, whose exertions were selfish in Russia, here exert themselves for the benefit of the community; and, as merit is the chief introduction to independent society, so all who possess it meet with liberal encouragement; and, unless their characters are sullied by acts of criminality, they are countenanced and supported. The unfortunate are generously distinguished from the villainous.

The officers here, both military and civil, are very numerous; the former, in consequence of this being the seat of government in the vicinity of the Chinese and Mongal territories; the latter, on account of the numerous courts of justice, and the necessary distributions to be made for the vast extent of its jurisdiction. I shall rate these in two classes; for rank is only a secondary recommendation here: the gentleman, who behaves himself with propriety, though poor, is completely independent, and every house is open to him; while the worthless are only attended to in the execution of their duty, and then with great reserve.

In this town there are neither inns nor coffee-houses; but no stranger, who behaves himself with common civility, will ever be at a loss for a home. I had very good quarters allotted me by Government, in which I had only resided a few days, when Brigadier General Troepolsky invited me to accept of apartments and

D

attendants

attendants in his house : his lady repeated the invitation, which I begged they would allow me to refuse. They then sent me every necessary to my lodging, which really compelled me to accept their first offer, to save them greater trouble. Their mansion was ever after my home ; and their friendship will always remain indelibly impressed on my mind. All kinds of food are cheap, as are spirituous liquors and home-brewed beer. Wines are dear. Many luxuries are imported from China ; and silks, cottons, linens, furs, nay English cloths, are moderate.

Throughout the whole of Siberia, hospitality prevails in the extreme. A traveller is perfectly secure on the road, and certain of a hearty welcome wherever he puts up, let the cot be ever so homely. But whether this hospitality will continue when they arrive at a certain state of refinement, to which they seem advancing with incredible haste, remains for future times to discover ; as also whether the expansion of ideas may not lead to the extension of territory, and other formal establishments.

In the morning of the 10th of May we had a heavy fall of snow, which lay on the ground two hours. By noon it cleared up ; and in the afternoon, at six o'clock, Captain Billings, Dr. Merck, and myself, left Irkutsk, accompanied by Count Manteuffel, Mr. Haak, &c. The Governor General had prepared a farewell supper for us at his villa, 18 versts from the city, where we passed the night. The next morning, at six o'clock, we took leave of our friends, with a most grateful sense of the multiplicity of favours that we had received during a stay of three months. Our road lay across the Buratskoi Step, so called from the immense herds of cattle and horses that the Burati graze here. These are of the Balagan tribe, and, with the Chorintsi, seem

seem outcasts from the race of Mongals; for they have no lamas, nor letters, but are complete demonolatrians, and consult their forcerers: all other tribes of Burati are intelligent people, have lamas, or priests, and are strict observers of their religious rites and ceremonies; their worship being performed in the Tungutski language, in which all their laws are written. They have different places for particular rites. The ceremony of an oath, or rather a curse, to prove their innocence, if suspected of a crime, is performed on some selected mountain: formerly, a very remarkable one situated near Kiachta, and called Burgutta, was their favourite place; but by a late treaty this mountain fell to the lot of the Chinese, which caused great dissatisfaction to the Burati, and was followed by desertions.

We arrived on the 12th, at two in the afternoon, at Katshuga Pristan, a village containing only 15 houses, situated on the river Lena, in latitude $53^{\circ} 26'$, longitude $107^{\circ} 2'$, 230 versts from Irkutsk. Here we found nine barks of from 10 to 15 tons burthen, ready to convey us and our baggage to Yakutsk. The number of packages amounted to 2600, exclusive of sail cloth, cordage, &c. not yet sent from Irkutsk; to forward which we left behind us Sturman Bronnikoff. Our guns, anchors, &c. were not yet arrived, nor did we expect them till the next year.

On the 14th May, in the evening, we had loaded all our goods, and got every thing ready for our departure down the river.

CHAP. III.

Departure from Irkutsk.—An Accident.—Remarkable Cave.—The River Lena and its Tributaries.—Arrival at Yakutsk.

ON Friday the 15th of May, at eight in the morning, Captain Lieutenant Hall set sail with three barks. At five in the afternoon, Captain Billings followed with the rest, giving the charge of them to Captain Lieutenant Bering. He then embarked in a dosfhennik * with Dr. Merck and myself, Count Manteuffel still accompanying us. The night was very dark, with thunder, lightning, and heavy rain. At midnight we arrived at Vircholensk, (an ostrog containing 100 houses, and two wooden churches, famous in these parts for its manufactory of coarse worsted stockings and night-caps) 35 versts from the place of our embarkment, and made fast to the shore. Captain Bering, a-head of us, ran foul of a merchant's bark, and sunk in nine foot water close to shore. We employed all hands in unloading the cargo, and found that, notwithstanding every precaution used, the boxes were not water proof. The moment the accident happened, the pilot leaped overboard, and swam to shore.

At seven in the morning of the 16th, Count Manteuffel went, with Dr. Merck, to see a remarkable cave, 15 versts from hence.

* A vessel calculated for accommodating a family, with baggage, down the Lena. It contains three cabins: one at the forecastle, with a separate entrance; one in the midships, and the other aftern. It is built of boards without a keel, flat bottomed, about 35 to 40 feet long; rows and steers with long sweeps, two men to each; is furnished with a mast, and one square sail, and named from *dosok*, a board.

They

They returned at two in the afternoon, and gave the following account of their expedition.

The mountain is called Khacharchai by the Burati, and the cave is situated about the middle of the ascent, surrounded by large trees of pines and birch. It is about one yard high, and half a yard wide; and the outward borders, as also the inside, as far as the eye can reach, are covered with a thick coat of ice. A thermometer in the shade was 14° above the freezing point; while another, placed about a fathom within the cave, stood 4° below it. A pretty fresh wind issues from the cave, which, according to the account of the guide, freezes all the summer, but thaws in winter, when a warm vapour supplants the chilling breeze. Among a great variety of plants near the place, the Rhe Rhaponticum is the most prevalent. About half-past three this afternoon we took leave of Count Manteuffel, who returned to Irkutsk.

Mr. Bering's bark being repaired, and reloaded from two other barks, which were left under the care of Mr. Main to wait the drying of the damaged articles, Captain Billings immediately proceeded with the other four.

I shall not weary the reader's patience with a circumstantial account of every day's progress; as I mean to state, in an Appendix, every stage that we passed from Mosco, noting the number of houses, and of versts, as also the time of our arrival and departure.

Continuing the plan that I at first adopted, I shall give a very brief account of this river, to avoid fatiguing my readers, and to encourage

encourage them to follow me through all the mazes of my progress.

The Lena takes its rise from an inconsiderable lake situated between the mountains near the Baikal, about 100 miles west south-west of Katsuga Pristan (wharf). It flows in a gentle and uninterrupted stream, though here and there impeded by shallows at a late season, to about the distance of 300 miles from its source, when it deepens considerably. The direction is very winding, but pretty uniformly east north-east to Yakutsk, and nearly north from thence to its discharge into the Icy Sea, about the latitude $71^{\circ} 30'$, and longitude 127° east of Greenwich, after a course of 3450 geographical miles. The appearance that it assumes is continually varying; in some places mountains bound the channel on both sides, clothed to the summit with stately pines; in others, they are barren, projecting into the river, and turning its course; taking fantastic shapes, resembling ruins of large buildings, towers, and churches; the chasms overgrown with hawthorn, currant-bushes, dog-roses, &c. In some places the mountains retreat inland for miles, forming a back ground to extensive plains, and exposing a miserably built town, surrounded with cornfields, gardens, and pasture grounds, with a few herds of cattle grazing; these openings are frequent at unequal distances of 5 to 40 versts from each other, and are always occupied by villages as far as Olekma, 1800 versts from Katsuga: all beyond is desolate, except a few huts inhabited by convicts, who have the charge of horses for the post, and the towns of Pokrofsky, Yakutsk, and Giganfk. The best of them is only a collection of huts inhabited by priests and their attendants, officers and Cossacks, who teach obedience, and enforce the payment of tribute from the wander-
ing

ing tribes of Tartars that infest the neighbourhood, and of whom I shall have occasion to speak hereafter.

The rivers that flow into the Lena are,

- The Ilga, - 170 versts from Katshuga.
 Koot, - 469—Very near the estuary of this river
 is a salt lake, which is very shallow;
 and works, the property of the pre-
 sent Ispravink of the district, at which
 one boiling produces 1080 pounds
 weight of salt.
- Marakofka, - 601.
 Makarova, - 690.
 Kiringa, - 778.
 Vitima, - 1178.—This river flows from a lake east
 of the Baikal. It is nearly equal to
 the Lena, in width, depth, and ex-
 tent; and is famous for fables, lynx,
 fox, ermine, squirrel, and deer.

The fables of this river, and of
 the Momo, which falls into it 300
 versts from the discharge, are very
 valuable, and of a superior quality.
 Numbers of Tungoose travel about
 here on the chace. Three versts up
 this river are the mountains that pro-
 duce talk. I have seen specimens
 formerly found, 28 inches square, and
 transparent as glass: what is now
 found

found is very small, but perfectly pellucid. All the windows of these parts are glazed with it.

Pellidui, - 1202—Also famous for the above mentioned animals, and the last place that produces corn.—*N. B.* Sparrows and magpies were not seen further north. They only came here about five years ago, after the ground had begun to be cultivated.

Nuye, - 1475.

Yerba, - 1505.—Here we saw the first Yakut or Sochalar. He was our pilot; very communicative, and good-natured. In this neighbourhood the river is replete with islands, having on them temporary Tungoose habitations for fishing.

Patama, - 1575.

Oonaghtak, - 1595.

Olekma,	-	1822.	} I shall refer to these rivers, and describe them on a future occasion, in an account of the Amur.
Aldan,	-	2600.	
Viluye,	-		

Besides several rivers farther north, of no material consequence.

Our navigation only extended to the town of Yakutsk, 2390 versts from Katsuga. We arrived in this town the 29th May, at seven P. M., and immediately ordered the loaded vessels to cross the river to the plains; whence the goods are to be forwarded on pack-

pack-horses. The next day the other barks arrived safe at the above-mentioned place.

To transport the articles that we had with us, and the parties, across the uninhabited country to Ochotsk, and to the river Kovima, two thousand horses were demanded of the commandant, or military governor, whose business it is to enforce the same by a paper signed by himself to the court of the interior, or land district. The Governor General of Irkutsk, Jakobi, had closed a contract with the merchant Siberakoff for provisions, consisting of flour, pease, grits, oatmeal, meat, butter, salt, vinegar, brandy, &c. an 18 months supply for 100 men; and the contractor bound himself to deliver the same at Virchnoi Kovima, by the first day of August next. Sail-cloth and raw-hides, for making baidars*, were also to be delivered by him, loads for more than 2000 horses.

The same gentleman closed the contract for the delivery of provisions, &c. at Ochotsk, a three years supply for 250 men; tallow for candles, grease, pitch, tar, &c. &c. Besides the immense number of horses wanted to transport the articles mentioned, our guns, anchors, cables, cordage, sail-cloth, cloth, and fops, with ammunition of all kinds, still remained to be forwarded from Irkutsk.

These horses were to be obtained from the Yakuti inhabiting the district of Yakutsk, and the Viluye. I think it necessary to remark, that to every three loaded horses, a spare one is allowed; and a guide has charge of only six under loads, two spare ones,

* Baidars are boats very flat-bottomed, the frames made of twigs, and covered with leather: they are so light, that four men can carry them with ease, and are rowed with six or eight oars.

and one upon which he rides ; so that where 2000 horses are demanded, 3000 are employed. The lesser number is paid for at the rate of one copeak a verst *per* horse : the average rate of travelling is 20 versts each day.

I was surprised at the astonishing activity that appeared in every officer civil and military, from the first to the last, in volunteering to go to some tribe or other of the Yakuti to procure horses ; but the grand point could not long remain a secret ; for their excess of zeal (as is the case in most zealous measures) led to an open breach between the military and civil government, which lasted just long enough for each to explain the interested views of the other. After they had done this in the most forcible manner, and completely vented their rage, they began to deliberate ; when it appeared, that both parties agreed upon the whole, and that the extent of the commission would admit of a general division : so they soon made up their minds to send some of each party with official authority. Universal harmony was immediately restored ; and each commissioner went with a full resolution to serve his employer in the best manner he could, with propriety to himself.

This was the first town in which I observed the officers from the highest to the lowest ranks form the poorer set of inhabitants ; while the Cossack Sotniks *, and Pyat † Desetniks (petty officers), were the most affluent. They are chiefly Sinboyarski ‡, well acquainted with the languages of the Yakuti, Tungoose, &c. and are always employed in offices of trust. We found the best entertainment among them ; at the same time they appeared the

* Commanders of 100.

† Commanders of 50.

‡ The lowest class of gentility, conferred upon the Siberians for some particular achievement or discovery.

more welcome guests at the habitations of their superior officers, where they pay their respects in the most flattering manner, and never experience a refusal in a proper application for an advantageous mission. I had my quarters at the house of the commandant, with Captain Billings.

In the evening of the 7th June, the first party was dispatched, under the command of Mr. Bakoff, with 136 loaded horses. Captain Lieutenant Hall had the charge of the parties to Ochotsk, and Captain Lieutenant Bering of those to the Kovima.

Yakutsk contains 362 wooden houses, five churches, and a cathedral. A monastery is now building, latitude $62^{\circ} 1' 50''$ north, longitude $129^{\circ} 34'$ east, on a shallow branch of the river Lena, three versts west from the main channel (*which is four versts across*), situated on a low sandy plain, sixty versts long, in a direction north-west, and eleven broad, producing chiefly wormwood, thistles, a few flowers, and wild onions; here and there clusters of hawthorn bushes and oziers, with currants, dog-roses, and raspberries. It is bounded to the west by a ridge of inconsiderable but woody mountains, from which the inhabitants obtain firewood.

Never was there a town in a worse situation than this. The branch of the river on which it is built is dry by the middle of July, and continues so all winter, the inhabitants having to go the distance of three versts for water. Although the river abounds with fish, they receive their supplies of that article, as also of meat, from about the Viluye, 400 versts down the river. Vegetables are brought them from the neighbourhood of Kiringa, 1650 versts up the river.

✓ In the month of June every necessary of life is brought hither down the Lena; and this is called the Yarmank. During this time every trader has permission to hire a public shop, and sell his ware; and this is the time at which the opulent lay in a twelve months' stock; for at the expiration of the month, the privilege of trading is only vested in the hands of the burghers, who make their own prices: these consist of five or six. Siberakoff, the contractor, has a house here, and at present occupies it himself, to superintend in person the dispatch of the articles for the expedition. During our stay, he may be said to have kept open house for the entertainment of the chief inhabitants and our gentlemen.

On Tuesday the 9th June we took leave of our friends in this city, after a stay of 10 days, and crossed the Lena, which is four versts over, to the plains, called the Yarmank, from being the general rendezvous for all travellers, traders, and transport goods, to the eastern and north-east parts of the empire. Here are extensive meadows, producing grass in abundance. The most prevailing plant that I observed was wild flax, some with white, and some with blue flowers; and a remarkable plant which the Russians call Zemlennoi Laudon, or frankincense of the earth: this is not a gum, but an aromatic root, given to children and to adults for pains in the bowels; its smell is very like that of snakeroot, though in appearance it is not so fibrous. Maiden-hair grows in abundance, and is collected, dried, and used by the Cossacks instead of hops. The Yakuti also make use of it occasionally, with juice of berries and water, to drink. Some sandy places are overgrown with horse-radish and wild onions.

On Wednesday the 10th June, at nine o'clock in the morning, all our baggage and food for the road were loaded on pack-horses,

about five poods on each, and we commenced an equestrian route. Our party consisted of Captain Billings, Dr. Merck, Mr. Robeck, Mr. Main, and myself, two petty officers, and nine privates, with an adequate number of Yakuti to take care of the horses and serve as guides. We travelled this day 28 versts, to the solitary habitation of a Yakut, where we halted and pitched our tents for the night. The next day we made 49 versts.

On Thursday the 16th of June we arrived, about eight P. M. at the river Amga, or Anga, which falls into the Aldan, and were ferried over to the habitation of a Yakut (who has charge of the ferry, in company with a Cossack), 237 versts from Yakutsk. The face of the country hitherto was undulated, consisting of wood, meadows grown with fine grass, and an immense diversity of flowers, romantic lakes, some of them very extensive and replete with islands; and here and there a solitary hut, the habitation of some herdsman. We saw and shot a great number of wild fowl, ducks, curlews, &c. From the Anga to the river Aldan, we found the country rather mountainous, more woody, and bearing less grass. Here we arrived on Thursday the 18th. The weather had been extremely hot and sultry all the way from Yakutsk; but we had here a thunder storm, which cooled the atmosphere.

The habitations on the north side of the Aldan consist of four huts, one belonging to Cossacks who guard the ferry, the rest to Yakuti with horses. 331 versts from Yakutsk the river is 500 fathom wide, flowing to the west, and well stocked with fish, as are also the neighbouring lakes. The woods abound in wild beasts and game; and the plains are inhabited by very opulent Tartars, who possess immense numbers of horses and herds of cattle. The south of the river is bounded by perpendicular moun-

mountains 70 fathom high, composed at the base of a hard sandy stone replete with petrified trees, very large, all lying one way, the roots north-west, and the tops in the mountains south-east. Above there is a stratum of loose sand-stones and small calcareous shells, with soft greenish earth that has a taste like copperas and a strong smell, and balls of sulphur. A stratum follows of a much harder stone, very compact, and impregnated with oyster, scollop, and other larger shells. Another stratum of petrified sea weeds, and wood; and then a stratum of small muscle shells in a very hard and compact greystone, some of which, when broken, are found to be full of fine crystals, &c. This mountain is six versts in length, and about 500 from the nearest sea. Here we found and left the first detachment, to divide into smaller parties.

Captain Billings resolved on prosecuting his journey to Ochotsk with all possible speed; to accomplish which, he left all his baggage with the party here, and only took necessaries for the road; and in the evening of the 19th we left the Aldan with twenty-one horses. Our party consisted of Mr. Robeck, Dr. Merck, and myself; a petty officer, two guides, and an interpreter. We now left the fertile and inhabited plains, and got intangled in woody mountains and morasses; rivers and torrents rushing down the mountains, and all the productions of nature changing, except the larch and firs, which were now stunted and ill grown. We found large spots covered with wild rhubarb and rosemary; *Rhe Rhaponticum* and *Ledum Palustre*; juniper, brush-wood, pinks, thyme, &c. The climate equally altered, the air becoming cold and raw.

We arrived at the ford of the Belia Reka (White River) on Sunday the 21st of June, at two P. M.; but found too much water to
justify

justify an attempt to cross it. We therefore placed a mark in the river, and, observing that it was falling slowly, pitched our tents, and the next morning perceived but very little alteration in the river.

Captain Billings, impatient to proceed, tried in many places to cross; at last his horse got into deep water, and he was forced to swim over. The river is about 200 fathom wide, and the stream was about seven knots, at the commencement of a rapid, over large stones; but the deep part was not above 15 fathom over. I sent him a Yakut guide and an interpreter, with some dried bread, brandy, tea and sugar, and my small tent. Dr. Merck attempted to cross; but the rapidity of the stream made him so giddy, that he fell off his horse where the water was only knee deep, and returned. A boatswain's mate, Kopman, volunteered, whom I permitted to go with a second guide, some spare horses, and bed clothes; and lucky it was that I sent a guide with him, or he and his horse would have gone down with the current. As I was very well mounted, I also swam across safely, and made a good fire, at which we dried and refreshed ourselves, and proceeded. Our party was now reduced to five horsemen in all, and nine horses *, two grey hounds, and a pointer. Our stock of provisions consisted of twenty pounds of dried bread, two bottles of brandy, with a little tea and sugar, for a journey of 600 versts through an uninhabited country. We experienced great advantage from travelling with few horses, as we had less difficulty in getting forward; and a very small plat of grass at once afforded us a halting place for the night, and furnished food for them.

* Captain Billings left one of the guides with directions for the other parties.

On the 23d we crossed a very considerable mountain called the Tshakdall; the ascent of which was chiefly up a torrent rushing from its summit over large stones. Here we observed for the first time the plant called by the Russians *Piania Trava* (*Rhododendron Chrysanthum*), held in great estimation by all the different tribes of Siberian Tartars, as also by the Russians, for its efficacy in curing rheumatic complaints and old ulcerated wounds, from whatever cause they spring. It is drank in a strong decoction in a vapour bath, and the wounds are washed with it. The mountain tops are covered with this plant and with the (*Pinus Cembra*) creeping cedar.

On Wednesday the 24th of June, at seven A. M. we had a heavy fall of snow, which covered the mountain tops. Not expecting such a sudden change from the extreme sultry weather that we had experienced a few days ago, we were quite unprovided for it, having left all our clothing, except nankeen jackets and trousers, behind with the baggage; at the same time the morasses and rivulets prevented our going on foot.

In crossing a very boggy spot our guide sung a melancholy song, which was thus interpreted: "This is the sad spot that was moistened by the tears of the venerable Tshogonnoi. The worthy old man! most skilful in the chase, and the constant protector of his friend. 'Twas here that, unable to support the fatigues of the journey, his companion, his friend, his last horse, fell. He sat down by the side of his last horse, and vented his anguish in the bitterest of tears: Yes, the bitterest of tears; for he never failed in the duties of a Sochalar*. He never deserved to weep.

* The Yakuti call themselves Socha, and the singular is Sochalar.

(The third day he was relieved by a traveller and assisted home).” The name of the place is Tshogonnoi Utabyta (the tears of Tshogonnoi). Having crossed this bog, we ascended the mountain Unechan, on the top of which, 178 versts from Aldan, we had a shower of snow, and were quite benumbed with cold. We crept under the *Pinus Cembra*, made a fire, heated some water with brandy, and refreshed all hands. The clouds soon sunk below the mountain, and we had a clear sky in descending its south side, where the sun dried our clothes. Here our greyhounds ran down several hares, which the pointer brought us. A torrent rushes down this mountain flowing about 10 versts. The Sammach meets another from the Seven Mountains called the Kunkui, which is the source of the Belia Reka, winding westward round the mountains.

On the 25th we crossed the Seven Mountains so called, though it is only one with seven sugar-loaf tops; but the summit of each must be crossed, on account of the immense ravines on each side. We arrived at three P. M. at the river Alachune, were ferried over, and pitched our tents. About three versts off are two solitary huts, inhabited by a Cossack and Yakut, to guard the ferry, and to keep six horses for couriers. We are here 230 versts from the Aldan. Mountains, bogs, rivers, and fields of continual ice, succeed each other to Yudomsky Krest, 200 versts. Here are three very good huts inhabited by Cossacks on the river Yudoma; also Government storehouses, where supplies are kept for Ochotsk till winter, when they are forwarded on sledges with dogs. We obtained here a little bread and some meat; but, our horses being in very bad condition, we left our boatswain's mate to wait the arrival of the first party. We also left our dogs, which were so tired that they could not possibly proceed any further with us.

Mountains and rivers continue to Urak Plotbisha, 90 versts. This was the place where formerly boats were built to convey the heavier articles of Captain Bering's expedition down the Urak to the sea of Ochotsk and the port. Five miserable huts inhabited by Cossacs, and Government storehouses, occupy a small place at the foot of barren mountains, from 20 to 60 fathom high, replete with Calcedoni, or what Mr. Laxman calls the Urak onyx, in a mother of greenish and reddish grey stone. The neighbourhood is extremely mountainous, containing a great variety of agates; and many large stones in the river possess petrifications and impressions of large shells. Some mountains appear composed of jasper or jade.

CHAP. IV.

Arrival at Ochotsk.—Present State of that City.

WE arrived at Ochotsk on Friday the 3d of July, (computing the distance about 1020 versts from Yakutsk,) and immediately saw Mr. Saretsheff, who informed us that he could not find timber fit for ship-building nearer than 70 versts up the Ochot; and that he had only two days before sent the ship-builders with 47 hired and government men to select and fell proper trees as near the river-side as possible.

On the 8th July, the transport vessel arrived from Izshiga, ballasted with black petrified wood exactly resembling pit-coal; but fire had no effect upon it.

On Sunday the 12th our baggage arrived, with Messrs. Ro-beck and Merck, all safe. They crossed the White River the evening of the day after our departure without much difficulty, the waters having much abated.

Toward the evening of the 14th, appearances indicated a fine succeeding day, according to the prediction of the Lamuti, who waited on the commandant, requesting his permission to allow them, the Yakuti, and as many of the inhabitants as were willing, to go the next morning on a duck-chase out to sea, and return with the flowing tide. The permission was made public.

Wednesday the 15th, between three and four o'clock in the morning, the weather being calm and cloudy, about 50 small canoes, with Lamuti, Yakuti, and a few Russians, went out to sea, and returned with the tide at noon, driving before them an immense number of the sea-duck, called Turpan. When they were got into the bay of Kuchtui, about a mile from its discharge into the sea, they were surrounded by more than 200 canoes, drawn up in a regular line, forming a crescent. Thus inclosed, the tide left them in about six inches water, and all the canoes were aground. A signal officer (the policy master) appointed by the commandant gave the word for a general attack, when a scene of the most whimsical confusion ensued. Men, women, and children, plunged in an instant into the water; some armed with short bludgeons, and others with strings and nets. While one knocked on the head all that came in his or her way, others of the same party strung or netted them, all hurly burly, huddling over each other. No field of battle is subject to such a variety of incidents and transitions. An ill-directed blow sometimes lights on the hand of a friend, instead of the head of the foe. Suddenly the shrieks, scolding, and swearing of the women, and wrangling among all, change to peals of laughter and merriment; and the supplication of the ducks, and the noise of myriads of gulls hovering about, form the strangest medley of sounds, perhaps, that were ever heard. The women caught by far the greater quantity; and the whole number destroyed amounted to more than six thousand five hundred.

The Turpan is as large as a domestic duck. The neck short; the bill black, short, and narrow, with a callous knob on the nostrils. The feathers black, with dark grey spots. They moult all the quill feathers at once, and consequently cannot fly; being driven,

driven, therefore, into shallow water, they are prevented from effecting their escape by diving, and become an easy prey. They taste very fishy, but make an agreeable change of food for the poor inhabitants. When salted and smoke dried, they are esteemed an excellent whet, with a dram, before dinner.

In the evening, a merchant's vessel, belonging to Grigory Shelikoff, under the command of Yefstrat Delareff, a Greek, arrived from the Aleutan islands, and the north-west coast of America, laden with furs. He left Ochotsk in the month of July 1781; arrived on the 10th August at Bering's island, where he passed the winter; the second winter he spent at Oonalashka; the winter of 1783 at Prince William's Sound, and the years 1784 and 1785 at Unga, an island off Alaksa.

Captain Billings's instructions recommended his travelling from Ochotsk in the transport vessel to Izshiga; to cross the country of the Tshutski, and descend the river Omolon to the Kovima; but it appeared not practicable for more than two or three in company to go this road, which was rendered still more uncertain, owing to the natives being on a doubtful footing of friendship with the Russians. This intelligence was confirmed by reports to Government brought by the transport vessel that arrived on the 8th instant.

Major Shmaleff, now in this town, was the commanding officer at Izshiga, or Izhiginfk, where he was esteemed to a degree of adoration by the savage neighbours, when a Lieutenant Polosoff was sent thither to superintend the discipline of the few soldiers in the garrison. This man preferred several secret charges against the major, who was in consequence ordered to the government

vernment city of Irkutsk to answer them; but illness has prevented his going farther.

The Tshutski and Koriaki, arriving at Izshiga after his departure, made inquiries after their old friend. Receiving no satisfactory accounts, however, and not meeting with the treatment that they were accustomed to, they refused the payment of their tribute to the new officer, who insulted and threatened them. They therefore left the place in the night in great disgust, vowing revenge against the destroyer of their protector, as they called Shmaleff.

The very heavy complaints on all sides against Polosoff induced the chancery of the Port of Ochotsk, under whose jurisdiction Izshiga stands, to order him away with the transport vessel sent there last spring, and to leave the command of the place to a serjeant; whose reports soon arrived, representing the necessity of Major Shmaleff's return to set matters to rights, and appease the wrath of the savages, who would not permit a Russian to go among them.

Polosoff went immediately to Irkutsk, and, having spent all his money, insinuated himself into the acquaintance of Captain Billings, who, on a suggestion of the governor's, that he might be of service, engaged him in the expedition, and brought him back to this place.

An old man now residing in this town, a native of the Kovima, Lobasheff, who has accompanied several expeditions to the Icy Sea, represented an easy way to the Kovima by the Amicon, and offered to guide Captain Billings; assuring him, that the roving
Tungoose

Tungoose on the road would put him to rights should he err. The Lamuti or Tungoose here confirming this intelligence, the resolution was taken; and on the 22d July Captain Billings demanded 93 horses for his conveyance, with baggage, &c. On the 25th, a courier was dispatched to the Amicon to procure a change of horses.

On the 27th, the last of our parties arrived from Yakutsk, with the baggage in pretty good condition.

On Thursday the 30th of July, the commandant of this port (Lieutenant-Colonel Kozloff Ugreinin) presented an official paper to Captain Billings, representing the variance between the Russians and the natives near the fort of Izshiginik, and recommending Major Shmaleff (now here on account of the false representations made by Lieutenant Polosoff), to be sent to Izshiga, on the part of the expedition, to regain the friendship of the Tshutski and Koriaki.

Major Shmaleff, on application, immediately offered to go, with great affability, and in full confidence of success. He is near 60 years of age; rather above six foot high, and very stout; but has been some time ill, and is still rather infirm. His disposition is mildness and good nature itself; and no man in the world ever bore a better character. He offered to sail with the transport vessel now ready for Izshiga; and was directed to secure two interpreters and two Cossacks of the Izshiga command, and, after pacifying the natives, to proceed to Virchni Kovima, and join us as soon as possible; which, he said, he supposed would be about next March. He was supplied with money for his expences, and trinkets for presents.

Captain-

Captain-Lieutenant Hall now received directions to superintend the building of ships here, instead of Captain-Lieutenant Saretshoff, who was ordered to accompany us. He departed with Mr. Bakoff and the party for the Kovima on the 1st August; Captain Billings, with Dr. Merck, Mr. Robeck, myself, and a few attendants, meaning to follow in two or three days: but before I leave this place, I beg leave to lay before the reader the following account of its situation.

The city of Ochotsk is in latitude $59^{\circ} 19' 45''$, longitude $145^{\circ} 16'$; built on a neck of land five versts long, and from 15 to 150 fathom wide, and its direction due east. It is chiefly composed of sand, shingles, and drift wood, the whole thrown up by the surf. The sea bounds it to the south, the river Ochot to the north, and its estuary terminates the neck of land. The town occupies the space of about one verst in length, contains 132 miserable wooden houses; a church and belfry; several rotten storehouses; and a double row of shops, badly stocked with handkerchiefs, silks, cloth, leather, and very bad trinkets; hams, butter, flour, rice, &c.

The air is unwholesome in the extreme, as fogs, mists, and chilling winds, constantly prevail, which so much affect the products of the earth, that nothing grows within five versts of the sea. Here stunted and withered larch-trees commence scantily; they thicken at 10 versts; at 15 versts a ridge of inconsiderable mountains are crossed, which seem to stop the effects of the sea air; for trees become more sizeable, meadows not unfrequent; and a few indigent Yakuti live hereabouts, with a very small number of horses and cows, chiefly belonging to the inhabitants of Ochotsk; who, except two priests, and the officers of the courts



View of the Port of Ochotsk.

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courts of justice, consist of sailors, Cossacks, and their families, the most drunken set I ever saw ; but, even in their excesses, obedient, and never insulting to their superiors. The scurvy rages here with great violence, owing, perhaps, as much to want of attention and cleanliness in the inhabitants, as to the climate.

Fish is the chief food ; but the finny tribe appear late, the first glut of salmon ascending the rivers at the latter end of June. Both men and women are employed in the fishery, which they practise with a net about 20 feet long, and three or four broad ; one part sunk with stones, while the other is kept afloat by pieces of the bark of poplar. The net is pushed into the river, by means of a long pole, while the fisher stands on the beach. One person sometimes has three nets, and catches during a tide from eight to twelve hundred. When fishing is over, they sit down on the beach, split the fish, and hang them up to dry for a winter's stock for themselves and their dogs, which are used for draft, and each householder on an average keeps twenty.

Every spring is a time of scarcity of provisions ; the dogs then become so ravenous, that it is not uncommon for them to destroy one another ; and the first horses that arrive are generally torn to pieces.

On our arrival, we dined with Mr. Saretcheff on cold roast beef, which tasted so fishy, that we thought it had been basted with train oil. In the afternoon we drank tea at the Commandant's : this also tasted of fish ; and when I mentioned it to our host, he recommended the next cup without cream, which was very good. He told me, that the cattle had been fed for the last ten weeks entirely upon the offals of fish, and that the cows preferred dried salmon to hay.

The harbour is formed by the river Ochot, flowing from the west and north-west into the spacious Bay of Kuchtui, 14 versts long, and about four wide; shallow, and more than three-fourths dry at low water. A river that gives name to the bay falls into its north-eastern extremity under the Mariakan mountains. These two rapid torrents, at their junction, are continually sporting with the banks, removing some, enlarging others, and throwing up new ones: the beds of the rivers are composed of loose pebbles, from about the size of a pigeon's egg to that of a swan's. The main channel of the Ochot is only navigable for small empty vessels one mile upwards; for in many places the depth is only one-half to two and a half feet, or six to eight feet at high water.

The communication with the sea has the appearance of an artificial cut 250 fathom wide, about 150 long, in a direction due south, and from six to seven fathom deep: the current three to five knots rippling. The sudden check that the stream receives from the sea is the cause of a bank in the form of a crescent, south south-west, and west, the distance of a mile and half out: a bar continues to extend westward, leaving a channel five feet deep at low water only, 30 fathom wide, but frequently shifting; and this is the only navigable passage. A very violent surf constantly breaks over the bar, and all along the shore. At the time of the equinoctial gales, the spray wets the houses of the town, and seems to threaten the destruction of the whole place. Shoal water continues out to sea; and at the distance of eight miles, the depth is only 10 fathom, with a bottom of loose stones, not compact enough to hold an anchor against even a moderate breeze of wind.

Such is the picture of a place where we purpose building two ships of 260 to 300 tons burthen!

CHAP.

CHAP. V.

*Departure from Ochotsk.—The Tungoose described.—Amicon.—
Tarin Urach.—Zasbiversk.—Virchni Kovima.*

IN the evening of the 3d of August we left Ochotsk, and travelled about eight versts, when we halted. Kopman, the boatswain's mate, who swam over the Belaia Reka to Captain Billings, in crossing a small branch of the Ochot, which led to our halting place, fell from his horse, and was drowned; nor could we then by any means find his body. It was, however, discovered a few days afterwards by a Yakut; the head much bruised, and a fowling piece, which was slung over his shoulder, bent: probably in his fall he had got entangled with the horse's legs. The next day we came to the spot where our people were cutting timber, near Mundukan, a branch of the Ochot, in a grove of sizeable larch.

On the 7th, at noon, we forded the Ochot, and arrived at the discharge of the river Ark, among the summer habitations of the Tungoose, who treated us with berries, and the women entertained us with a dance.

On the 9th we crossed the Aglikit, on the borders of which, at the foot of a mountain called the Ooyega, are ten summer huts inhabited by Tungoose. Captain Billings, desirous of getting forward with all possible speed, obtained from them 22 rein-deer, and halted the next day to refresh our horses; the neighbourhood

producing plenty of good grafs: we are here 200 versts north north-west of Ochotsk.

On the 11th I received dispatches for Captain Lieutenant Bering, at Virchni Kovima, desiring him to proceed from thence to Seredni, and collect timber to build three floops for navigating the Icy Sea; if, upon enquiry, there appeared a probability of procuring wood; if not, to stay at Virchni.

Having with me the ship-builder and my servant, at three P. M. I left the party, mounted on a beautiful young rein-deer; the saddle placed on its shoulders, without stirrups; no bridle, but a leather thong about five fathom long tied round the head of the deer; this is kept in the rider's left hand, that he may prevent its escape if he falls, and, when refreshing, have a little scope to select its food. A strong stick about five feet long assists the rider to mount; though the Tungoose, for this purpose, use their bow; standing on the right side of the deer, they put the left leg upon the saddle, lean on the stick with the right hand, and spring up with astonishing apparent ease: we, however, could not effect it by any means without assistance; and, during about three hours travelling, I dare say that we fell near twenty times. The top of the saddle is square and flat, projecting a few inches over the sides of the deer; the seat is secured by drawing up the calves of the legs toward the thighs, and clinging fast to the projecting parts of the saddle, which at first causes astonishing pain to the thighs: by the third day, however, I became a very expert rider; the shipbuilder could not manage it at all, and went for the most part on foot; of course my travelling was not very expeditious.

On



Drawn by W. Alexander

Engraved by J. Powell

View of the Peak and Rivulet of Shilcap near Ochotsk with Tungoose Tents.

Published March 2^d 1802, by Cudell & Davies, Strand.

On the 16th of August we crossed a very lofty mountain, called the Oorakantsha, about half way up the ascent of which is a plain, with an extensive lake. The passage over this mountain is very disagreeable, up a ravine, down which a noisy torrent takes its way among masses of stones, with tremendous overhanging rocks. We laboured twelve hours in crossing it, and found it extremely barren, not producing a blade of grass; but in one place was a small bed or two of moss, where we refreshed our deer for about a quarter of an hour. This is one of the Vircho Yanski chain of mountains, remarkable for being the source of the Ochot, Indigirka, Iydoma, and Mayo rivers, and distant from Ochotsk 415 versts. I compute its situation from the reckoning that I kept of course and time, latitude $62^{\circ} 10'$, longitude 144° east of Greenwich.

This chain has a direction nearly east and west, extending about two degrees north and south; though some branches appear from the latitude of 61° to nearly 67° north.

On the 17th I overtook the courier that was dispatched the 25th of July from Ochotsk, and soon discovered that he had been making a trading trip among the Tungoose. I therefore sent him to seek for horses among the neighbouring Yakuti, agreeable to his orders.

On the 20th I arrived at the Amicon, which is the name of the chief source of the Ingigirka, on the borders of which are built two Russian Irbas, inhabited by Cossacs, who are charged with the care of post-horses, or rein-deer, for travellers, this being the winter road from Yakutsk to Ochotsk; latitude $63^{\circ} 5'$, longitude 145° .

This neighbourhood contains, within the circumference of 30 versts, about 20 inhabited Yakut huts. The face of the country is moderately level for about 90 versts, interspersed with meadows and groves of larch, poplar, asp, birch, and alder, with underwoods of black and red currants, dog-rose, and raspberry. The situation is well calculated for the Yakuti; for, placed beyond the reach of intruding visitors, they pass their time in savage indolence, and, like the bears, their neighbours, are only roused from their lethargy by the absolute calls of nature, when they prowl about in quest of animals. The verges of the mountains that bound the plains are infested with bears, lynxes, wolves, foxes, elks, deer, hares, squirrels, and some fables. The meadows support their immense numbers of cattle and horses, and the rivers and lakes abound in fish and wild fowl; so that a trifling effort is sufficient to supply every want that they are sensible of.

I took leave of my Tungoose and their rein-deer, and declare that I did so with regret; for I was now an adept in riding, and found them more easy and agreeable than horses; but, above all, I was enchanted with the manly activity of my guides, their independence, and contentment. Satisfied with the limited productions of nature, where nature itself seems to forbid the approach of mankind, their astonishing fortitude, keeping in full force every lively sensation of the mind, and surmounting all difficulties, until they obtain the interesting object of their pursuit, inspired me with an ardent desire to participate in their dangers and delights. I pronounce them "great Nature's happy commoners;" for they are

—————"As free as Nature first form'd man,
" Ere the base laws of servitude began,
" When wild in woods the noble savage ran."

The

The romantic desolation of the scenes that frequently surrounded me, elevated my soul to a perfect conviction that man is the lord of the creation. I considered the dependence of the inhabitants of great cities, necessitated to supply the luxurious, opulent, but still more dependent, as the greatest and most submissive humility that refinement can impose upon man, checking his hospitality, and baffling all his hopes of mutual and reciprocal enjoyment, which is the basis of society, and the only source of happiness.

The Tungoose wander over an amazing extent of ground, from the mouth of the Amour to the Baikal Lake, the rivers Angara, or Tungooseka, Lena, Aldan, Yudoma, Mayo, Ud, the sea coast of Ochotsk, the Amicon, Kovima, Indigirka, Alasey, the coast of the Icy Sea, and all the mountains of these parts; constantly on the look-out for animals of the chase. They seldom reside more than six days in one place, but remove their tents, though it be to the small distance of 20 fathom, and this only in the fishing season, and during the time of collecting berries in such solitary places as are far distant from the habitation of Cossacs*. Here they leave their supplies of dried fish and berries, in large boxes built on trees or poles, for the benefit of themselves and their tribes in travelling during the winter. Berries they dry by mixing them with the undigested food (*lichen*) out of the stomach of the rein-deer, making their cakes, which they spread on the bark of trees, and dry upon their huts in the sun or wind.

They seem callous to the effects of heat or cold; their tents are covered with shamoy, or the inner bark of the birch, which they render as pliable as leather, by rolling it up, and

* They say, that their tents contract a disagreeable smell from remaining long in one place.

keeping

keeping it for some time in the steam of boiling water and smoke.

Their winter dress is the skin of the deer, or wild sheep, dressed with the hair on ; a breast-piece of the same, which ties round the neck, and reaches down to the waist, widening towards the bottom, and neatly ornamented with embroidery and beads ; pantaloons of the same materials, which also furnish them with short stockings, and boots of the legs of rein-deer with the hair outward ; a fur cap and gloves. Their summer dress only differs in being simple leather without the hair.

They obtain supplies of food from the Russian inhabitants of the Amicon, Indigirka, Uyandina, Alasey, Kovima, Zashiversk, Ochotsk, &c. They are religious observers of their word, punctual and exact in traffic ; some few are christened ; but the greater part are Demonolatrians, have their forcerers, and sacrifice chiefly to evil spirits.

An unchristened Tungoose went into one of the churches at Yakutsk, placed himself before the painting of Saint Nicholas, bowed very respectfully, and laid down a number of rich skins, consisting of black and red foxes, sables, squirrels, &c. which he took out of a bag. On being asked why he did so, he replied, " My brother, who is christened, was so ill that we expected " his death. He called upon Saint Nicholas, but would have no " forcerer. I promised, that if Nicholas would let him live, I " would give him what I caught in my first chase. My brother " recovered, I obtained these skins, and there they are." He then bowed again, and retired.

They

They commonly hunt with the bow and arrow, but some have rifle-barreled guns. They do not like to bury their dead, but place the body, dressed in its best apparel, in a strong box, and suspend it between two trees. The implements of the chase belonging to the deceased are buried under the box. Except a forcerer is very near, no ceremony is observed; but in his presence they kill a deer, offer a part to the demons, and eat the rest.

They allow polygamy; but the first wife is the chief, and is attended by the rest. The ceremony of marriage is a simple purchase of a girl from her father; from 20 to 100 deer are given, or the bridegroom works a stated time for the benefit of the bride's father. The unmarried are not remarkable for chastity. A man will give his daughter for a time to any friend or traveller that he takes a liking to; if he has no daughter, he will give his servant, but not his wives.

They are rather below the middle size, and extremely active; have lively smiling countenances, with small eyes; and both sexes are great lovers of brandy.

I asked my Tungoose, why they had not settled places of residence? They answered, that they knew no greater curse than to live in one place, like a Russian, or Yakut, where filth accumulates, and fills the habitation with stench and disease.

They wander about the mountains, and seldom visit such plains as are inhabited by the Yakuti; but frequently resort to the solitary habitations of the Cossacs appointed to the different stages, as they are there generally supplied with brandy, needles, thread, and

such trifles as are requisite among them and their women, who always accompany them in their wanderings.

August 20. Immediately upon my arrival at Amicon, I sent for five horses for my party and baggage, including one for the guide, and also begged that a change might be procured for the party with Captain Billings. I was informed, that a Sinboyarsk of Yakutsk, who accompanied some of Siberakoff's contracted provisions, had obtained two days ago 63 horses; and that upwards of 200 had been lately sent from this neighbourhood to assist the party from Yakutsk under the command of Captain-Lieutenant Bering; so that but very few remained; and I concluded that the party which I left would be but badly supplied.

On Friday the 21st August, at noon, I obtained five horses, and proceeded on my journey. On the 23d, in the morning, I arrived at a place called Tarin Urach, an extensive plain, replete with lakes and woods, the habitation of several Yakuti. Here I found the Sinboyarsk from Yakutsk, with Siberakoff's provisions. His name was Ivan Yefimoff; and he, with the inhabitants, persuaded me to float down the Indigerka on a raft, to the habitation of the Yakut prince, Nicolai Samsonoff, where I could be supplied with horses, and proceed on a good and strait road to Virchni Kovima. They assured me, that it was the shortest road, not obstructed either by rivers or mountains; and that such travellers as required but few horses always took this route, which did not produce grass enough for caravans, or great parties.

I was offered four men to take me to the Yakut prince's; and told, that, if I chose it, they would get me two small rafts immediately.

mediately. I agreed to this, and the next morning, at nine o'clock, embarked, made 70 versts by dark, and pitched my tent in a wood near some tremendous rocky mountains. The night was windy and rainy; and the howling of wolves at no great distance prevented our getting much sleep. In the afternoon of the 26th, we arrived in the neighbourhood of the prince's habitation, to which we walked, and found him extremely drunk; so that it was with difficulty I obtained two horses to send for my baggage.

The next morning, at a very early hour, I awakened the prince, who apologised for having been drunk, declared that he had no horses at home, nor any man except an old fellow; and that 60 horses and all his men had been sent about ten days ago to Captain Bering's party at the Momo. He told me, that the season was too far advanced for me to travel the road pointed out; but that there was a probability of success on the way that Mr. Bering had taken from the river Momo.

Friday the 28th, at nine o'clock in the morning, I obtained horses, and immediately proceeded on my journey to the Momo, which we crossed on Sunday the 30th; the country being generally level, with abundance of brush-wood. This morning we saw upwards of 20 hares, and arrived towards evening at the habitation of an unchristened Yakut chief, named Choratin, a very hospitable man, who said that Captain Bering had passed the Momo on the 16th, and lost several horses in crossing the river; but that now this road was not passable, and no other way was left for me to go than through the town of Zashiversk, whither he would conduct me himself.

I was extremely sorry to get so much to the north-west of the place of my destination; but, as there was no mode of avoiding it, I was compelled to submit.

We prosecuted our journey the next morning, and arrived at Zashiversk on the 3d of September at noon. I made immediate application to the mayor (Mr. Samfonoff) for his assistance, not only regarding my travelling the best way, but with respect to provisions, mine of every kind being completely exhausted in the morning, and I hoped here to procure a small supply. Mrs. Samfonoff gave me some tea, sugar, and bread, out of a very small stock of their own. They were very happy to see a European, the first (except a general in exile) that they had beheld for four years; and their behaviour was extremely polite and kind.

This town contains one church, five isba's, or Russian houses, and 21 huts, on a boggy point of land running into the Indigirka. The opposite shores are barren perpendicular mountains, producing in ravines here and there a stunted larch-tree, as described in the annexed ENGRAVING. Its situation I compute in latitude $66^{\circ} 30'$ north, longitude $142^{\circ} 10'$ east. The inhabitants consist of the mayor and his wife; the captain of the district and his wife, now residing (for the sake of fishing) 40 versts down the Indigirka; two priests, brothers, and their attendants; two writers; and all the rest are Cossacs.

The mountains embay the town east, south, and west; so that the sun is only visible three hours and 30 minutes at this season; from the 12th November till the 6th January O. S. it is hid, and the place is enveloped in night.

On



View of the Town of Lashiversk.

Published March 2^d 1892, by Cuttall & Davies, Strand.

2

On the 4th, at five P. M., we left Zashiversk upon the same horses that brought us, but with two guides. The next day we crossed the Indigirka at the ferry called Samondran, 40 versts from the town. A little to the north of this place we observed the branch of the Virchoyanski chain terminate by low and detached mountains; the Arctic flats succeeded, which are very boggy, except here and there an elevated spot producing a cluster of stunted larch-trees, ozers, and alders; the other parts are occupied by an immense chain of lakes, all joining by narrow runs.

On the 13th we arrived at three inhabited Russian isba's on the river Uyandina, near its discharge into the Indigirka, about the latitude $67^{\circ} 45'$, and longitude $148^{\circ} 35'$. These people carry on a trifling trade with the wandering Tungoose, and the Yakuti, that go in quest of mammont's tusks, giving in return dried fish, and flour, with some articles of dress and ornament.

Near this place we recrossed the Indigirka, and travelled nearly east to the Alasey mountain, which I estimate in latitude $67^{\circ} 8'$, longitude $153^{\circ} 10'$; from hence our road led nearly south; the country became more uneven, and better wooded, to Virchni Kovima, where I arrived on the 28th September, after suffering innumerable hardships in this roundabout road, and being the last 16 days without either bread or salt, living merely on dried fish of bad quality.

Captain Billings had arrived on the 8th, and all his party a few days after him. Captain Bering was here only four days before him; but part of his convoy were not yet arrived, though they left Yakutsk on the 16th of June. The glass was now 18° below the freezing point of Reaumur, and all the rivers were frozen over sufficiently to support horses.

CHAP. V.

Meeting of the Command, under circumstances of difficulty.—Reflections.—Visit the Yukagiri.—Occupations on our return.—Virchni Kovimskoi and its Inhabitants described.—Cossacs.

HOWEVER happy I considered myself on rejoining my companions, the prospect that it opened to my view was truly melancholy. No provisions had arrived, although the contractor's time for the delivery was stipulated at farthest for the 1st of August. The stock that we had was insufficient for the road; and the inhabitants, consisting of eight males, were in a miserable situation themselves; for, not expecting such a number of visitors, they had not made any preparation for them, and had only secured a scanty winter's supply of fish for their own use. To add to the general calamity, the rivers and lakes were now destitute of fish. The habitations were five half decayed isba's, and one extensive hut, besides a chasovnoi (house of prayer), which necessity compelled us to convert into barracks. Two earthen huts were immediately constructed, one for our Izshiga Cossacs, who wished to live together; the other I took, with Messrs. Main and Varonin. Two sheds also were erected; one for our instruments, &c. the other to serve as a work-shop for our shipbuilders; these were covered with sail-cloth. We also built a smithy.

Captain Billings sent all the horses that he could collect to fetch in such provision as might be found scattered about the roads and woods, by the falling of Siberakoff's horses, and at no great distance.

On

On the 22d of October, the last of the party, under Captain Bering's charge, with baggage, &c. arrived, which increased our number of working hands to 78, exclusive of Yakuti. Every article was more or less damaged, and many things were lost and left behind at different places, where the pack-horses had died of fatigue and want of food. Soon, however, we were relieved by frequent arrivals of flour and butter.

On the 26th the smithy was finished, and a travelling forge erected, which we had brought with us. Timbers were preparing for building a vessel of 50 feet keel, and every thing going on with the greatest alacrity, although numberless difficulties were to be surmounted, and all hands reduced to a sorry pittance of bread and salt. Notwithstanding all this, a spirited and determined resolution existed every where. The Yakuti within 150 versts supplied horses to drag the felled timber three versts up the river Yafashnoi to the sheds. Wiers were made and placed in the river to ensnare the finny fry; but none made their appearance until the 29th, when 45 large nalime were caught, and the next day 60, which afforded great refreshment.

With the month of November the weather came in almost insufferably cold; the thermometer indicated from 32° to 37° and 41° below 0 of Reaumur; mercury proved of no use in measuring the degrees of cold beyond $32\frac{1}{2}^{\circ}$; but our spirit thermometer never froze. I shall take the liberty to insert here our thermometrical remarks for eight days, with one of Mr. Morgan's, filled with spirits.

Nov. 22.

			Wind.	
Nov. 22.	4 A. M.	38 $\frac{1}{2}$	S. W.	Light airs.
	6	39 $\frac{1}{4}$		9 ounces Φ frozen in 2 hours, the
	8	39 $\frac{1}{4}$		earth, ice of the river, timber of
	12 M.	38 $\frac{1}{2}$		the houses, &c. cracking, with re-
	4 P. M.	39	S. S. E.	ports equal to that of a musket.
	6	39 $\frac{1}{2}$		
	8	39 $\frac{1}{2}$		10 ounces of Mercury in a stopped
Strong N. lights	12	40		phial froze in 2 $\frac{1}{2}$ hours.
23.	4 A. M.	37 $\frac{1}{2}$		
	6	36		
	8	32		About 10 o'clock the Φ in a stopped
	12 M.	32	S. E.	phial thawed.
	4 P. M.	32 $\frac{1}{4}$		Little wind.
	6	32 $\frac{1}{4}$		Mercury frozen.
	8	30 $\frac{1}{2}$		N. B. About half an hour only; during
Strong N. lights	12	33		which time Mercury was not com-
24.	4 A. M.	34	N.	pletely thawed, and was soon quite
Light	6	35		frozen again.
Airs	8 A. M.	36		
	12 M.	35 $\frac{1}{2}$		
	6 P. M.	35		
Strong N. lights	12	36		
25.	4 A. M.	34 $\frac{1}{2}$	S. W.	Little wind.
	12 M.	34 $\frac{3}{4}$	N. W.	Ditto.
	4 P. M.	35		
	6	36		
	8	37		
	12	38		
26.	4 A. M.	39 $\frac{1}{2}$	S. E.	Thick fog; the earth and river crack-
	8	40 $\frac{1}{2}$		ing violently.
	12 M.	40 $\frac{1}{2}$		
	8 P. M.	40 $\frac{1}{2}$		
	12	41 $\frac{1}{4}$		
27.	4 A. M.	40 $\frac{1}{2}$	N. E.	Very light airs.
	6	40 $\frac{1}{4}$		Quite calm.
	8	40		At 9 A. M. a bottle sealed with
	12 M.	38		Astracan brandy (called here French
	4 P. M.	39		brandy) exposed to the frost, thick-
	8	40		ened very much, but was not frozen.
	12	40 $\frac{1}{2}$		

		Wind.	
Nov. 28.	4 A. M.	37 $\frac{3}{4}$	E. N. E.
	8	33	S. E.
	12 M.	32 $\frac{1}{4}$	Mercury thawed.
	4 P. M.	31	
	6	30 $\frac{1}{2}$	
	8	31 $\frac{1}{2}$	
	9	32 $\frac{1}{2}$	At 10° 30' observed & frozen.
	12 M.	36 $\frac{1}{4}$	At 33°.
	29. 6 A. M.	38 $\frac{1}{4}$	to 39° all day.
	30. 6 A. M.	35 $\frac{3}{4}$	S. S. W. Little wind.
	8	33	
	12 M.	31 $\frac{1}{2}$	Mercury thawed.
	4 P. M.	31 $\frac{1}{2}$	
	8	32	
	12 N.	32	

At 37° it was almost impossible to fell timber, which was as hard as the hatchet, except it was perfectly dry; and in the greatest severity the hatchets, on striking the wood, broke like glass. Indeed it was impossible to work in the open air, which compelled us to make many holidays much against our inclination.

The effects of the cold are wonderful. Upon coming out of a warm room, it is absolutely necessary to breath through a handkerchief; and you find yourself immediately surrounded by an atmosphere, arising from breath, and the heat of the body, which incloses you in a mist, and consists of small nodules of hoar ice. Breathing causes a noise like the tearing of coarse paper, or the breaking of thin twigs, and the expired breath is immediately condensed in the fine substance mentioned above. The northern lights are constant and very brilliant; they seem close to you, and you may sometimes hear them shoot along; they assume an amazing diversity of shapes; and the Tungoose say, that they are spirits at variance fighting in the air.

Our fishing continued, but gradually decreased after the first four days ; and with the month of November the fish nearly left us, reducing us again to bread and water. At times, indeed, a few were caught till the middle of December.

We had now and then supplies of flour arriving, and by the end of the year the quantity received amounted to 2042 poods ; but, not having ovens enough to bake bread for all hands, the generality of them used to boil the flour, and eat it with fish-oil.

Toward the end of the year the scurvy made its appearance, though not in a dangerous degree, and affecting but a very small number. The cold increased to 43° , which froze our Astracan brandy. By Christmas, we had the keel laid of a vessel of 50 feet, and resolved upon building another of 36 feet, with boats. The leather bags which contained our flour were appropriated to the purpose of making a baidar ; there now existing no probability of Siberakoff's delivering hides for that purpose.

Our working hands were increased by 16 Cossacs from Neizhni Kovima, sent by the commander of that place, making the number 94, exclusive of officers. The poor horses employed in dragging timber from the woods exhibited such a picture of misery as perhaps never before existed ; they were fed with brush-wood and the tops of willows, having neither grass nor hay. They seldom worked longer than a fortnight, then tired and died.

Our only happiness was derived from general harmony among ourselves, and a resolution to overcome every difficulty, to secure the means of leaving this worst of all places in the world, as soon as the ice of the rivers should break up, and afford us a passage.

Animated

Animated by this spirit, notwithstanding the severity of the weather, every thing went on with amazing success. Our joy was increased, by obtaining for the Christmas holidays a supply of meat from some Yakut chiefs who visited us; and it was doubled toward the close of the year by a prospect of better times.

A man who rolls in affluence, and knows neither cares nor sorrows, can hardly feel for those of others, and is of all people in the world the least qualified for pious deeds. Let him but visit these regions of want and misery; his riches will prove an eye-sore, and he will be taught the pleasure and advantage of prayer. Let the advocates for the rights of man come here to enjoy them; for this is the land of liberty and equality! Nor will the Directory of the Great Nation, with all their great generals, ever possess it in perfection until they have reduced their country to the independent state of this part of the globe; where a man sees and feels that he is a man merely, and that he can no longer exist than while he can himself procure the means of support.

Our distress, and hopes of relief from the mercy of heaven, led us one and all to devotion on the first day of January 1787: and never was a fast-day in England more devoutly passed in prayer for plenty; for there never existed there, nor ever will, I hope, such a scarcity.

The Yakut chief who had supplied us with horses was this day rewarded for his attention and losses, by the present of a silver medal, which was fastened about his neck with proper ceremony.

We had the sun at this time three hours above the horizon, yet the cold by no means decreased; now and then, however, we

made a trifling excursion, and were charmed with the appearance of partridges and hares, which induced us to send out our jagers for the benefit of the community; but they were not very successful.

On the 14th of January Captain Billings proposed a visit to the Yukagiri (who reside about 50 versts from hence), to see their manners and customs, and procure a vocabulary of their language. He was accompanied by Dr. Merck, Mr. Robeck, our drawing-master, and myself; and we were conveyed on narti * drawn by dogs.

This method of travelling did not answer my expectation. We had 13 half-starved dogs to each sledge, which contained very little baggage; and I kept pace with them, walking the greatest part of the way on snow-shoes. We were nine hours on the road; but about midway we made a halt to eat some raw frozen salmon, which I thought excellent, although it was the first time that I had ever taken my fish dressed by a 30° frost; nor had I any other sauce than salt and hunger.

We arrived pretty late in the evening, and put up at the hut of the chief; a man so remarkably stupid, that he could not tell us how many children he had till he called their names over, bending a finger to each; and, after all, they were only five daughters and two sons. The whole number of inhabitants was 27 males and 23 females, including children.

After having taken a refreshment of tea, with bread and butter, eight of the young women of the village came to entertain us

* These are a kind of long sledges, very narrow and low.

with

with songs and dances to a strange inharmonious monotony of sound; and their action was an uninteresting display of their manner of hunting, skinning, and dressing the skins of animals.

The next morning we began to make our observations; but found that all their old customs were abolished, and that the race was almost extinct. They call themselves Andon Domni, and are ignorant who gave them the name of Yukagir. They are in tribes, and, besides this place of residence, have villages near the estuaries of the rivers Indigerka, Yana, and Alasey. Their customs were like those of the Tungoose, with whom they live in great friendship, and some of the tribes intermarry. The whole nation comprises only about 300 males, as wars with the Tshutski and Koriaks have swept off great numbers, the small-pox still more; and the venereal disease now seems engrafted among them, as if finally to eradicate the race. They reside at these habitations from the middle of December till the middle of February, while the weather is too severe for the chase; also in June and July, being the fishing season. They frequent the sources of the Kovima and Yafashnoi in quest of deer and wild beasts, which they float in rafts to their dwellings, or bring in narti with dogs. They speak Russian very well, which enabled me to take a good vocabulary of their language. Their dress is now the same as the Russians of these parts: it was formerly like that of the Tungoose, whose tailors they still remain, embroidering the ornamental parts of their cloathing, for which they receive in return articles of dress, skins, or furs. The Yukagiri call the Tungoose Erpeghi.

On the 18th January we returned to our dwellings, and found every thing going on with alacrity. We set our coopers to stave-making, and began building boats and one baidar.

At the commencement of the month of February, the weather during the day began to be more moderate. On the 4th, we sent a soldier to Seredni, or the Middle Kovima, to bake bread for the ensuing summer; and a cooper to Neizhni, to make casks: we also sent Lobashkoff, a Cossack Sotnik well acquainted with these parts, to purchase the meat of rein-deer of the inhabitants or wandering tribes about the Omolon; he was furnished with salt to preserve it, and with money, tobacco, and trinkets, for the purpose of barter.

Not having any agent at Irkutsk for the purpose of dispatching the articles that still remained to be forwarded to Ochotsk for the expedition, it was thought necessary to send Captain-Lieutenant Bering to superintend this business. He left this miserable place on the 12th February, and took commissions from every officer for private supplies of necessaries, both of food and raiment.

The scurvy gained ground upon our people, affecting their joints, and contracting them, particularly the legs. A decoction of the *Pinus Cembra* was used, and also sweetwart and quafs, and with success.

In the month of March we had our vessels in a great state of forwardness, and were warping planks for sheathing. The days were pleasant, but the night-frosts continued from 20° to 32° . On the 12th day of the month the snow-larks made their appearance, to my great joy, for they afforded me many a good dinner.

On the 1st of April, Captain Billings pitched his astronomical tent. On the 8th, a Yakut arrived, with 14 small casks of butter, which had wintered on the road; but brought no news of
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any more of Siberakoff's contracted articles. We were now making sails; and a rope-walk was at work by the 20th.

On the 29th, swans were observed flying to the north; on the 23d, geese; on the 26th, ducks; and toward the end of the month we obtained abundant supplies; among which, we now and then observed a small-sized goose quite white. The scurvy entirely left us as soon as we returned to the use of solid food.

The 1st of May, at four A. M. we had 22° of frost; and at eight A. M. 23° of heat in the sun. Our people were now employed in caulking and preparing rigging for both vessels, and making oars and sweeps for the boats. Some hands were sent to shoot birds, hares, &c. which were in great plenty, and not very shy.

All appearances were now as favourable as they had lately been discouraging; and perfect health, good spirits, and satisfaction, appeared in every countenance; when an accident, for the moment, threatened the worst of consequences. On the 14th, a little past midnight, we were alarmed by a fire breaking out at the dwelling of our mechanic, only a few yards from the spot where our vessels lay on the stocks, quite ready for launching; and these were with the greatest difficulty saved. All the brandy that had hitherto arrived for the use of the expedition, which consisted of 51 ankers, and was deposited in a store-room adjoining to the house, was consumed. This accident was caused by the carelessness of the inhabitant, who had made a fire-place in the entry close to the wooden wall, where he dressed his supper, and left the fire burning.

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On the 15th, the ice of the river Yafashnoi began to move, and the following day it floated with the stream.

On the 17th, we launched the larger vessel, and called her *The Pallas*, as a mark of the respect we bore to the very learned Doctor of that name, who was the chief cause of the expedition taking place; though the original suggester of it was the Reverend William Coxe, A. M. F. R. S. author of "An Account of the Russian Discoveries between Asia and America," and of many other valuable works, too well known to require mention in this place.

The water of the river had risen 12 feet perpendicular, and remained so all the 18th. On the 19th, we launched the second vessel, which we named the Yafashnoi, and the command of her was given to Captain-Lieutenant Saretshoff. The perpendicular rise of the water on the 21st was 22 feet, even with the borders of the river; and the next day it overflowed the Ostrog, and compelled us to retreat to the tops of our houses, where we pitched our tents. The baidar and two boats were now finished, and, carrying all the materials in them from the store-houses, we loaded our vessels. The Pallas was cutter-rigged, and the Yafashnoi had three lugs and a fore-sail.

The perpendicular rise of the water on the 24th was 27 feet. The face of the country resembled an immense lake, and some of the tree tops appeared just above the water. In the afternoon all hands went on board. Mr. Main received the charge of such as were not required with us, and directions to return to Ochotsk with all convenient haste, to assist in constructing the vessels there.

Virchni

Virchni Kovimskoi Ostrog is situated on a boggy spot, overgrown with willows and alder bushes, bordering on the river Yasashnoi, three versts from its discharge into the Kovima. Its latitude is $65^{\circ} 28' 25''$; and longitude, by several sets of lunar observations, $153^{\circ} 24' 30''$ east; variation of two compasses $7^{\circ} 33'$ east. The number of buildings that it contains I have already mentioned. The inhabitants are Cossacs, their wives, and attendants.

A Cossac at Irkutsk is employed, by the governor and chief officers, in the most contemptible drudgery, such as cleaning the stable, scowering the kitchen, making fires, &c. At Yakutsk he is of more consequence, and finds employment as translator and emissary; but is faithless, sly, and crafty. He lives in this part of the world like an independent chief, keeping Yakut labourers to assist his wife in all domestic drudgery, fishing, cutting wood, &c. Her particular province is to wait on her husband, whom she assists in putting on and pulling off his clothes, which she keeps in good repair; she also dresses his food and serves it up; and when he has made his meal, she sits down and eats with the rest of the labourers.

Girls are frequently married to the Cossacs at the early age of twelve; and, as it is a slave that they want, it seems a matter of indifference to them whether she be Russian, Yakut, Tungoose, or Yukager, provided she professes the Greek faith. Both sexes seem incapable of forming any tender attachment; the women are very inconstant to their husbands; and the worst of disorders is deeply-rooted among them and all their neighbours, having been introduced by Pavlutski and his followers, who were sent hi-

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ther to subdue the Tshutski, and communicated this disorder to all the other tribes.

The lordly Coffac is only to be roused from his indolence by an order from his superior; and then he curses his fate, which has placed him under the control of others. These last of mankind, unworthy of the name, these hardly animated lumps of clay, exert the most savage barbarity over their wives, children, animals, and the poor neighbouring tribes whose miserable lot it is to pay tribute to them, or to be under the least obligations, either by drinking a glass of brandy, taking a leaf or two of tobacco, or in any other way. They receive annual supplies of articles that are necessary, ornamental, or luxurious, from the traders at Yakutsk, to supply the different tribes with; rendering, in return, furs and mammoth's tusks. Their chief endeavour with these wanderers is, to get them indebted for any article that they may stand in need of, or to procure the receipt of a trifling present (which in honour they must return with one more valuable); but if they once get in debt, then they are persecuted to the utmost, and are frequently necessitated to leave a man to work, or a woman, perhaps a daughter, as security for the payment.

I have here sketched a faithful picture from the very men who are sent hither to explain to the natives the benefits arising from the Christian faith, and to set an example of loyalty and obedience.

CHAP. VI.

Departure from Virchni Kovima.—Seredni Kovima.—Inhabitants of the River Omolon.—Neizshni Kovima.—Shalauoff's Wintering-place.—Laptieff's Mayak.—The Pallas consecrated, and Captain Billings advanced in rank.—Passage much annoyed by Ice.—Spiral Bay.—Wolves' Bay.—Barranoi Kamen.—Captain Billings resolves on declining any farther attempt to proceed, and the Command returns to Neizshni Kovima.

MAY the 25th, at seven o'clock in the morning, we left Virchni Kovima Ostrog, and falling down the Yafashnoi, entered the river Kovima about eight.

It is impossible to give any description of this part of the river, because the shores and islands were overflowed. Its direction, however, is nearly north-east, and the navigation was rendered extremely difficult, owing to the current in many places setting with great rapidity into the woods.

We arrived at Seredni Kovima on the 28th, at nine o'clock in the evening. This ostrog contains 15 isbas and a church; the inhabitants, though of the same class as those at Virchni, are better circumstanced, and much more industrious, cleaner, and healthier in their appearance; which I attribute to the spirit of emulation that they possess from the activity of the priest, who, like a good shepherd of his flock, attends them to their different fishing-places at the various seasons of the year, and presides over the division;

upon which occasion, however, though he were not present, there would not exist any disputes. Fish are so extremely numerous, that, had not the severity of the weather in winter prevented any communication, we might have received ample supplies at Virchni from hence.

This place is situated in latitude $67^{\circ} 10' 14''$, longitude, by time-keeper, $157^{\circ} 10'$; variation of two compasses gave the mean, $9^{\circ} 19'$ east.

Here we finished an anchor, which was begun at Virchni; but the swell of the rivers prevented our proceeding with it: we also took in a stock of fish and bread.

The weather was very variable upon our arrival, with a south-west wind, and extremely hot. But it soon shifted to the north, and on the 2d, 3d, 4th, 5th, and 6th of June, we had frost and snow, with 4 , 5 , and 6° below 0 of Reaumur at nights; during the day-time the thermometer indicated 0 , and one degree below it.

The river Kovima was not yet within its limits; but on the 11th we prosecuted our voyage. The eastern bounds of the river are broken perpendicular mountains, producing in ravines a few very stunted larch-trees. The western shores are low, and in some places still overflowed; but here and there an elevated spot produces a cluster of very thin and low larch-trees. Our vessels were frequently carried aground on the overflowed islands; but, by sending out a small hawser into the main channel, and taking into the long-boat a few bags of flour, we got off. Such accidents as these, with contrary winds, prevented our arrival at the Omolon

summer-huts (six in number, opposite the river of the same name) before the 16th in the morning. These huts are 350 versts from Seredni, and were erected for the purpose of fishing, during the month of June only, by the inhabitants of the river Omolon, who are exiles, and the only people of these parts that have European countenances. They are in number nine males, the youngest 50 years of age, and about 12 females. They were emancipated by an act of grace about ten years ago, and pay a head-money equal to the Siberian peasants. Their employment is fishing, seeking the tusks of the mammoth, and hunting animals about the neighbourhood. They trade with the Koriaki and wandering Tungoose; they are, however, very poor, and pretend to be more so than they really are, to evade making presents to the collectors, &c.

At these solitary huts we found Major Shmaileff, with two interpreters for the Tshutski and Koriak dialects. He has completely settled all disputes, and reconciled the above two nations with the Russians. They received him with great kindness, and assured him that they would assist the Expedition to the utmost of their abilities, and meet him on the sea-coast near the Tshaoon next summer. The Major brought with him a very great supply of dried deer's meat, which we took on board. He embarked in the Yafashnoi; and we took the interpreters, Dauerkin and Kobeleff, into the Pallas.

The next day, being the 17th June, we prosecuted our voyage, and arrived on the 19th at the Ostrog Neizhni Kovima, on an extensive island. Here are about 70 houses, and a church; also an ostrog, inclosing government store-houses, &c. in a square of compact palisadoes eight feet high, with four entrances each, support-

supporting a tower. These ostrogs are for keeping prisoners in, and also to serve as places of defence, being pierced with small holes to point a musket through, and thick enough to repel a shot from the rifle-guns of the wandering tribes; latitude $68^{\circ} 17' 14''$, longitude $163^{\circ} 17' 30''$; variation $14^{\circ} 14'$ east.

We took in a little salted deer's meat, left the *Yafashnoi* to undergo some alteration in her rigging, and gave the priest orders to come in her as far as to the discharge of the *Kovima*, to consecrate the vessels, and to administer the oath to Captain Billings; who, according to the mandate of her Imperial Majesty, was to declare himself a Captain of the second rank upon his arrival in the Icy Sea.

On Saturday the 19th June, at half-past six in the afternoon, we weighed anchor, with a moderate breeze from the south-east. The waters were much abated; the depth of the river was 12 fathom; its width three miles; and its direction about north-east. Thirty-five miles below *Neizhni* we observed the last tree; brushwood continued a little farther.

On the 20th, at nine A. M. we arrived off the place of *Shalau-roff's* wintering in 1762; consisting of a large store-house and double dwelling-house of wood in decay, under inconsiderable mountains, composed of slate and quartz, covered with moss; great quantities of drift wood lying on the shore. The productions of the earth are willow and birch bushes about eight inches high, and the distance about 80 versts from *Neizhni*. Captain Billings, Dr. Merck, and I, went on shore, and collected a few plants; as wolfsbane, a wild vetch (the root of which is the support of the marmot), tanzy, and a species of rock fern (the leaves not exceeding three inches in length, with an aromatic taste, and pleasant

pleasant smell). Here we lay at anchor three hours. At three quarters past twelve we proceeded, the depth of the river decreasing gradually to one fathom. At five P. M. we again came to anchor, and sent out a boat to find the proper channel; the soundings varying much, six, seven, eight, and ten feet, deepening to seven fathom. At eight we again weighed, and found the width of this branch of the river 12 miles.

Notwithstanding our navigation was impeded by shallows at the discharge of the river, where we frequently got aground, we cleared all of them about midnight, and cast anchor opposite Lap-tieff's Mayak*, five miles from shore, in four fathom water: sand-banks prevented our nearer approach.

On Monday the 21st June, at two A. M., Captain Billings took his astronomical tent on shore; and our naturalist, Mr. Robeck, and I, accompanied him. We could not get within two miles of the Mayak on account of the shoals, which compelled us to land in a bight two miles and a half more to the east. On rowing towards shore in a small boat, we got the Pallas's hull down, and shortly after she disappeared; increasing our distance, she was again seen, hull, rigging, &c. seeming of an immense size, and considerably above the horizon. The weather was rather hazy, and the sun obscured.

This morning we walked across the head-land to the buildings in the next bight, which consist of three isba's adjoining each other under a hill; upon which is a pyramidal building 25 feet high, supporting a cross, bearing the inscription "SHALAUROFF,

* Beacon, or light-house.

1762." The huts were built by Laptieff and his company in 1739. Where he wintered, at a small distance, is a cross bearing an illegible superscription; and a stage, about ten feet high, covered with earth, upon which they made signal fires. The shores are covered with drift wood. This is the resort of different tribes for the pestli, or stone fox; and numbers of falls, or traps, are placed in different parts. We observed the traces of wolves, and in the afternoon two approached very nigh to our tents. Two dogs gave chase to them, but were not equal in speed.—Hazy and misty weather.

On Tuesday the 22d, at eight P. M. the Yafashnoi arrived, and cast anchor about 100 fathom south-west of the Pallas; hazy and misty weather continuing. At midnight flying clouds; and at intervals the sun visible.

On Thursday the 24th, at four A. M., we struck the astronomical tent, without having been able to take a single observation, owing to thick weather. At nine o'clock we went on board; Captain-Lieutenant Saretsheff and Major Shmaileff accompanied the priest to the Pallas, which vessel he consecrated, and after service administered the oath to Captain Billings for his advanced rank. At eleven he returned in his boat to Neizhni, and Captain Billings sent dispatches to the Governor-General of Irkutsk, with others to be forwarded to St. Petersburg.

At noon we weighed anchor with a gentle breeze at south south-west, shaping our course north north-east, the depth varying from one and one-fourth to three fathoms, and keeping a boat ahead employed in sounding. At six P. M. we saw the first ice floating near the vessel; immediately after, the wind shifted to
north

north by east, bringing a very thick fog. We came to anchor in four fathom, about four miles from shore. The Yafashnoi anchored astern.

On the 25th, at ten A. M., a moderate breeze springing up from the north-west, we again weighed, and stood to the north north-east, the atmosphere very foggy. At eleven saw great quantities of ice to the north; at five P. M. were quite surrounded with ice; soundings seven fathom, sand and clay. At six the ice compelled us to stand-in for shore, having run about eleven miles north-east. At eight, being about a quarter of a mile from shore, off a small bight, cast anchor in two fathom water. We saw four black bears on the beach, manned our jolly-boat, and sent our chasers after them; but in vain. At ten Captain Billings took his astronomical tent and apparatus on shore.

All the 26th was hazy and wet; great quantities of ice floating and collecting to the north-east. Misty weather continued all the 27th; and, on account of ice gathering about the vessel, at nine P. M. we hauled her close into a small bight in seven feet water; but were obliged at eleven P. M. to weigh, and stand away to the west, the only passage open. We had a gentle breeze from the north-west, which, freshening on the 28th, brought ice about us. We hauled about five miles west, and, getting into a snug bight, dropped anchor. On account of spiral rocks on the top of the mountains that bound the bay, we called this place Spiral Bay. At noon we had a sight of the sun; and, having sent for our tent and instruments from our last anchoring-place, observed the latitude to be $69^{\circ} 27' 26''$, longitude, by time-keeper, $167^{\circ} 50' 30''$.

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We had calms and variable light winds, with thick weather, till the 1st of July at noon, when we again weighed, the weather being hazy, with a fresh easterly breeze, keeping as near the east as possible. At eight P. M. Captain Billings resolved to shape his course north, to see how the ice was in that direction. We observed that the current carried us two points west, and our soundings gradually increased from four to 15 fathom. At midnight our rigging was covered with ice, the thermometer, about seven feet above the sea, indicated one-half above the freezing point. Thick fog still prevailed.

At two A. M. on the 2d, we got among very thick detached pieces of ice; which increasing upon us, our depth decreased to nine and seven fathom. Wore ship, and bore away to the south, having lost sight of the Yafashnoi in the fog at ten last night. The ice was not so compact as to prevent our going farther; and from our shoaling water, I was inclined to think that we should soon fall in with either the continent or some island; I therefore wished that Captain Billings would have continued his northern course. The wind blew fresh; but the quantities of ice kept the sea down, and the water was quite smooth. He was fearful of being entirely hemmed in, and was under serious apprehensions for the safety of the Yafashnoi, which was a small slight-built lugger. At eight A. M. we got clear, and observed that the fog hovered over the ice only. At noon we came into a pretty deep bay (which we named Wolves' Bay, from our seeing several of those animals on the mountains); and, dropping anchor, sent three sailors on shore, with directions to proceed to the next western promontory to look out for the Yafashnoi, and make a signal-fire.

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On the 3d of July, at four P. M., we weighed, with a moderate south-east breeze, and stood off and on three hours for the sailors on shore; when, the wind veering to north-east, we again came to anchor near the same place. At midnight we had flying clouds, the sun was visible, and a beautiful rainbow was seen in the south.

On the 4th, at five A. M., the sailors returned on board, and said that they had walked to Cape Kovima, where they made a signal-fire, having seen the Yafashnoi at anchor about ten versts off. She sent her boat on shore to inquire after the Pallas, and at six P. M. came along-side.

On the 5th, at four A. M. again weighed anchor with a westerly breeze; and, on account of drifting ice, with difficulty made about 14 miles eastward by three A. M. the sixth, when we again came to anchor. At noon we got an observation for the latitude, which proved $69^{\circ} 27' 43''$; longitude, by time-keeper, $168^{\circ} 29'$. Variation of four compasses gave the mean $17^{\circ} 12' 30''$ east. We now sent the boat on shore to haul the seine, and caught about 300 herrings; we had tried in Wolves' and Spiral Bays, but without any success.

On the 7th, at seven A. M., an officer was dispatched with a boat round the next promontory, called Barannoi Kamen, to examine the state of the ice. At nine in the evening he returned, and reported that the ice was compact to the very shore, leaving no kind of passage. Captain Billings walked round the promontory, and found the ice as the officer had stated. He saw an immense number of geese on a lake, and found two mammont's tusks; one of which weighed 3 poods $17\frac{1}{2}$ lb., or 115 lb. English

weight ; the other was much smaller. Mr. Bakoff was sent with a few hands to the lake to endeavour to obtain some wild geese. They proved to be in a moulting state, and he collected in a short time 98, with which he returned to the vessel. While on shore, he saw several rein-deer, but could not shoot any.

All the 8th, we had calms and variable light airs. On the 9th, at two P. M. a moderate breeze sprung up from the north-east, which brought down upon us great quantities of floating ice, and made us seek shelter by weighing and failing westward. At four P. M. both sun and moon were at times visible ; and Captain Billings took an observation for the longitude ; but, flying clouds constantly obscuring one or both, it could not be exact, although it pretty nearly agreed with our time-keeper ; it proved $167^{\circ} 57' 40''$, and might err, perhaps, one way or the other, a few miles. We anchored in Wolves' Bay on the 10th, at eight P. M., and remained till three A. M. on the 17th, when we again attempted to go to the north-east with a moderate north north-west breeze, keeping as near the coast as convenient. We passed immense fields of ice, which obliged us to come to anchor close in-shore, after having run about 14 miles.

On the 18th, we erected a cross on an eminence. The next day, at nine A. M., observing the sea more clear of ice, we weighed with a gentle north-west breeze, shaping our course along the coast north-east. Observing a cross on shore, we sent to learn the inscription, which was only "1762." About four P. M. we passed Barannoi Kamen, and got among pretty large detached pieces of ice, on one of which we caught a stone fox. We also saw two or three seals, and with a boat-hook caught one sleeping on the water. The weather was hazy ; and, the wind freshening,
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by ten P. M. we made 30 miles. The latter part of the time the ice increased about us, and some of it was eight foot above the water. Our depth was 10, 11, and 12 fathom. At eleven o'clock Captain Billings thought his situation dangerous; he therefore tacked, and stood back again, making a signal for the Yafashnoi to do the same. At noon, we came to anchor close in-shore off Barannoi Kamen, which promontory we had passed 15 miles, being about half-way to the next point of land, called by Shalau-roff Pesoshnoi Muis, and which is the south-west cape of the Tshaoon Bay.

On Tuesday the 20th July, at six o'clock in the morning, Captain Saretshoff came on board the Pallas, in consequence of a message sent him; when Captain Billings informed him, that he was resolved to give up all thoughts of any further attempt, and meant to return to Neizhni Kovima as soon as the wind would permit.

On the 21st, at noon, we got a sight of the sun from on board: the latitude proved $69^{\circ} 35' 56''$; longitude, by time-keeper, $168^{\circ} 54'$, Barannoi Kamen bearing south, distant three miles. Pesoshnoi Muis east, distant 30 miles. Variation of the compass $17^{\circ} 40'$ east.

A fresh breeze from the west continued, with ice drifting to the east with the current, which now set at the rate of three miles uniformly east, till midnight of the 25th July; when we observed the current setting in the same direction at one mile, with little wind from the north-west, which shortly after veered to the north-east. Till this time we found the water fresh enough to dress food, and sometimes quite fresh. With the north-east wind, we observed

observed the current shift to the west, and the water became salt: we saw several seals, some small whales called the Beluga, and one whale of a moderate size; circumstances which induced me to think that we now might gain a passage. Mr. Saretshoff was firmly of my opinion, and offered to attempt it in our open baidar with six hands, meaning to sleep on shore every night. The possibility of success was farther confirmed by Mr. Shmaileff; but was not agreed to by Captain Billings, who took the signatures of the officers in testimony that it would be more prudent to return to Neizhni Kovima. We experienced a constant succession of snow, rain, and fogs; and the thermometer varied from the freezing point to 4° above it; nearer shore 8° and 7° . At seven o'clock in the morning of the 26th we weighed anchor, and stood away to the west for the river Kovima; and, after encountering some difficulty in getting over the flats at its estuary, arrived on the 29th July, at eight o'clock in the morning, at Neizhni, delivering up the vessels and stores to the commander of the place.

To conclude the detail of this short excursion, I shall subjoin the following remarks: The coast of the Icy Sea is moderately high, formed by projecting promontories and shallow bays, exposed to every wind except the south. The mountains are covered in different places with snow; which melting, produces small torrents rushing into the sea. They are composed of granite, quartz, and a hard black stone; and produce moss; a kind of vetch, the root of which is edible; creeping willow; and birch, not exceeding ten inches in height. The shores are covered with drift wood nearly to Barannoi Kamen, but no farther east. Along the shore are numerous remains of huts, and places where fires

have been, which, in all probability, have been made and left by different hunters.

The quadrupeds that we saw were rein-deer, pretty numerous; bears, but none white; wolves, foxes, stone fox, wild sheep, and the whistling marmot. The birds were, gulls of several sorts, ravens, hawks, black-headed buntings, snow-larks, a few partridges, geese, ducks, and divers.

The productions of the sea are very few. We frequently hauled the seine, but only once caught the feld (herring) and muk-soon (a small species of salmon). We saw several belluga, seals, and one whale, but no traces of shell-fish of any kind. The water was fresh to a considerable distance; the ice we frequently tried, but found it brackish, with neither ebb nor flow. The currents were very irregular, seldom setting any one way longer than the wind blew, at the unsettled rates of half a mile, a mile, and three miles and a half, per hour.

The atmosphere was cold and chilly, the greatest heat that we experienced being while at anchor close in with the land in Wolves' Bay on the 15th July, when we had several claps of thunder. We had a gentle south-east breeze, and calms; and while the wind blew, the thermometer rose to 14° and 16° above the freezing point of Reaumur. During the intervening calms, it sunk to 6° , 7° , and 8° . The coldest day was the 12th July, the thermometer being then 2° below the freezing point. It frequently indicated 1° above 0 at the time when our rigging was incrufted with ice.

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The fogs here are very remarkable, continually hovering above the ice at no great height. At a distance they appear like islands in a haze; sometimes like vast columns of smoke. Once, in particular, we thought that the Tshutski had made signal-fires for us; but on a nearer approach we discovered our mistake.

I observed the horizon to be most clear in the coldest weather, and am inclined to think that this navigation ought to be undertaken about the first of August. The more success is to be expected, from the testimony of the hunters and others who visit these parts, "that the ice never breaks up until St. Elias' day, the 20th July, Old Stile (or the 31st July New Stile)"; and I think it necessary to remark here, that my dates are all Old Stile, according to the custom of Russia.

The estuary of the river Kovima at Shalauoff's winter buildings, by exact reckonings of bearings, course, and time, from places where observations were taken in the Icy Sea, and from Neizhni Ostrog, forwards and backwards, I fix in latitude $69^{\circ} 16'$, longitude $166^{\circ} 10'$; variation of the compass $17^{\circ} 30'$ east.

The following is the result of my remarks and inquiries during my stay at Neizhni Kovima:—I observed swallows swarming together under the eaves of the church, chirping very much, particularly on the 2d August; and on the 3d there was not one to be found, nor had any body seen them depart. I was informed, that they made their appearance about Tzarivoi day (21st May), and departed on the (days of Spas) 2d and 6th August, never staying beyond the latter date; the red-breast remains a day or two longer than the white. The snow-bunting, the first bird that
appears,

appears, is seen about the middle of March feeding on the seeds of grass on the sandy shores of the river, and about the roots of bushes where the sun first melts the snow; different flights pursue each other in their migration for about a month; eagles follow close upon them. Swans, geese, and ducks, arrive toward the end of April, and continue about the neighbouring lakes and rivers till the beginning of September. The river is frozen over about the 20th September, and opens about the 24th May, when it deluges the low country. The water does not retreat within its bounds till the end of June.

On the 25th November the sun sets until the 1st January, when it again appears above the horizon; and this is the time of the severest cold.

CHAP. VII.

Departure from Neizshni Kovima Ostrog.—Yermolova Tona.—Towing by Dogs.—The Mountain of Konzsheboi.—Seredni Ostrog.—Natural History of the Kovima.—Sketch of the Inhabitants on its Coast.—Information derived from an old Cossac, and others, respecting the fate of Shalauoff.—Arrival at Yakutsk.

CAPTAIN BILLINGS, Dr. Merck, Mr. Robeck, our Russian secretary Vassiley Diakonoff, and I, with a necessary number of sailors, departed from Neizshni Kovima Ostrog on the 6th of August at four P. M. with the two boats and the baidar, in 4° of frost, rowing and hauling against the stream. At eleven o'clock at night we arrived at Yermolova Tona, a fishing place resorted to by the inhabitants of Neizshni during the season. Mr. Saretsheff and the rest of our company were left to follow us in the transport vessel, which was hourly expected to bring provisions for the Cossacs. On arriving here, we were informed that this vessel had passed about two o'clock in the afternoon; but, owing to hazy weather, we did not see it. We were also told, that dispatches from Russia were in the possession of a courier passenger. A boat was immediately sent, and we waited till the next noon for our papers, chiefly letters. I was favoured with one from St. Petersburg, and another from Brigadier-General Troepolsky of Irkutsk.

We proceeded at two P. M., having obtained one lodka, or canoe; but found extreme difficulty in getting on with our boats

and so much baggage ; in consequence of which, Captain Billings left every article, except the provisions, with Vassiley Diakonoff on shore, in the morning of the 9th, and dispatched the baidar to Mr. Saretshoff with intelligence of the contents of our papers, &c. At six o'clock in the evening, we arrived at three uninhabited huts belonging to the villagers of the river Omolon, and took possession for the night, which was very stormy, with snow. The thermometer was at 0 ; and, the gale continuing all the next day with snow and rain, we were glad to keep so good a birth. One of our sailors, a christened Koriak, who formerly resided a short time on the Omolon, recommended, as the most eligible method of getting forward, canoes to be drawn by dogs on the beach against the stream of the river. He told Captain Billings, that the village was only ten versts by land across the opposite cape, and that he knew the road perfectly well. His advice was taken ; and on the 11th, at noon, the wind abating, I received the Captain's directions to take the boats and men to the huts opposite the discharge of the Omolon, where he purposed meeting me ; and he, Dr. Merck, and Mr. Robeck, set out with the sailor before mentioned, and a soldier. The width of the river being about a mile and half, and the wind blowing very fresh from the west, with great difficulty they gained the opposite shore, quite wet ; the boat returned at six P. M.

Bad weather detained me till the 13th in the morning, when it blew a moderate breeze, and I set off with two boats and the canoe. After making, with great difficulty, 15 versts, half-way to the huts, the wind increasing to a gale, I was obliged to take shelter under the high eastern shore, where I passed the night, and arrived at three o'clock in the afternoon of the 14th at the huts,

which Captain Billings had reached but two hours before me. We were now 110 versts from Neizhni.

The Captain told me, that, owing to the difficulty they experienced in crossing the Kovima, and the swampy road that they had to travel, which was knee-deep in wet moss, they did not arrive till the next noon at the habitations, after passing a shocking night, sleeping on the moss, in the snow and wind, without any covering or shelter: Dr. Merck and Mr. Robeck, the surgeon, had their toes frozen.

Sunday the 15th August, at eight o'clock in the morning, Captain Billings, myself, two attendants and four guides from the Omolon village, proceeded on our voyage to Seredni, leaving Dr. Merck and Mr. Robeck to follow in the boats. Crossing the river, we put our harnessed dogs on the beach, and they hauled us 40 versts, to a famous mountain called Konzheboi, where we pitched our tent, and passed the night. We observed wild onions, thyme, tanzy, thornoi golovnik, currant and rose bushes, about the shores; and in the fissures of the rock, juniper, creeping cedar, and here and there a stunted larch-tree. The composition of the mountain is granite and quartz. On the beach were numberless small pebbles of carnelian and calcedony.

We constantly travelled at the rate of 50 or 60 versts each day, until the 22d, when we arrived safe at Seredni Ostrog, 460 versts from Neizhni.

The eastern shores of the river are uniformly mountainous, producing agates, jasper, porphyry, and crystals; and we saw several Yakuti on hunting parties.

On the 25th, Dr. Merck and Mr. Robeck arrived; and Mr. Saretshoff, with all our party, joined us in the transport bark on the 28th.

Of the neighbouring Yakuti we sent to request a supply of horses to convey us to Yakutsk, with the earliest winter roads. The inhabitants were, for the greater part, at their autumnal fishing huts on the river Euxeva, 40 versts up the Kovima, when we arrived; but returned a few days after with a plentiful supply of fish, berries, roots, &c.

On the 20th September the river was frozen over; and on the 22d, the inhabitants made a kind of dam nearly across, by sticking poles upright quite close together, only leaving openings for inserting nets and wiers, to catch a winter's supply of fresh fish.

The nets were examined twice a day, and generally found well stocked with nelma, muksoon, omul, and feld (a kind of herring), a few stirled also were now and then caught; and these were thrown on the ice to freeze, the only method adopted to preserve them. The weather was clear and cold, with from 5 to 10 and 16° of frost.

The river Kovima takes its rise from the Virchoyansky chain of mountains, and flows in a direction nearly north-east about 1800 versts. Virchni, or the upper Ostrog, is about the middle of its course, and very few fish ascend higher. Near its source are three huts and a store-house, called Virshinoi, where government supplies of provisions are housed, and barks built for their conveyance down the river.

Fish

Fish are very plentiful, of which the following sorts are caught :

English Names.	Yakut Names.	Russian Names.
Sturgeon.	Katus.	Osëtre ; called by the inhabitants of the Kovima Shtshalbysh—July to October.
Salmon.	Tut Balyk.	Nelma ; large white salmon $2\frac{1}{2}$ to 4 feet long, weighing upwards of 60 pounds—July to October.
Ditto.	Mungur.	Chir or Tshir ; 20 inches—May to November.
Ditto.	Mukfoon.	Mukfoon ; 15 to 18 inches, silvery scales—Sept.
Ditto.	Omül.	Omül ; 12 to 14 inches—Ditto.
	Seld.	Seld ; resembling a herring, silvery loose scales—Ditto.
	Shookur.	Sieg ; 12 to 15 inches, silvery scales—May to November.
Quab.	Selu Sar.	Nalime ; to 5 feet long, resembling the cod in shape and taste ; has one beard ; the liver extremely large ; and I have extracted a full pint of fine pellucid oil from one : by putting it over a slow fire in a frying-pan, and cutting it, almost all the liver has been dissolved.
	Baring Ata.	Peledi ; somewhat resembling a carp in shape, but quite white scales : bony.
	Tshukutshan	Tshukutshan ; about 20 inches long, quite round and firm ; about 7 inches in circumference in the thickest part, gradually tapering to the tail, which is forked. It has two dorsal fins, very compact and fine scales, and a thick skin. The head rather flat ; pointed gristly nose ; the mouth is underneath, about 2 inches from the tip, shaped nearly like that of the leech, without teeth ; a very bony fish ; flesh white. They are rather scarce, and not esteemed for food.
	Booyit.	Lenok.
		Koniok.
	Dyrga.	Charius.
	Kiustak.	Chebak.
		Perch.

English Names.	Yakut Names.	Russian Names.
Perch.	Alshre.	Okun, } plenty in all the stony rivulets.
Stone ditto.	Taasbas.	Yerfh; }
Char.	Sobo.	Karas; chiefly in lakes.
Trout.	Kafil balik.	Krasnaia riba; scarce.
	Irungk bulyk.	Nesnaki; a white fish shaped like a trout; very scarce.
	Timir atta.	Zsheleznai noga.
	Turuchan.	Nerpiski; shorter and broader than the feld.
Minnow.	Soluro.	Mondushka.
Pike.	Sording.	Shtshuk; some of a most extraordinary size. I saw one caught in the lake Kysla, near Zashiversk, about 6 feet long, and weighing 108 lb. or 3 poods. The back, towards the head, was covered with a kind of moss. I ate some of it, and found very little difference between the flavour of it and the smaller sort.
	Irungka,	resembling in size and appearance a sprat or anchovy; perhaps the same kind of fish as is caught at Revel, and called Strömlingi.

The muksoon, omul, and feld, come in very great shoals in September, are very numerous for about 10 or 15 days, and depart shortly after the river closes. They do not ascend so high as Virchni. Nelm, tshir, or chir, and sieg, are caught all the year as high up as Virchni; and the greater part of such as are caught in the spring and summer are split and dried, and the bones taken out, from which the inhabitants extract a great quantity of oil, as also from the fat about the guts. The feld yields a great deal. What I have called the sturgeon is, in my own opinion, the stirlid. I do not know the difference (nor did any one in our Expedition), but judge from the size; for I never saw one that weighed more than 40 lb., and the ordinary weight was from 5 to 10 lb.; yet, owing to their extreme fatness and firmness, I am inclined to think that the rivers of these parts are favourable to them; and the sturgeon that I have seen in other parts

parts are three times as large, without being so fat, firm, or well flavoured: all, except this one sort, are caught as well in lakes as rivers, where they pass in the floods and thrive very well, particularly the tshir and sieg.

The inhabitants fish with the seine in summer; and in winter they plant osiers nearly across the river, so close as to preclude the fish from passing; but leaving openings for wiers and nets.

The Beasts that infest the neighbourhood are:

English Names.	Russian Names.	Yakut Names.	Time of the Chase.
Elk.	Sochata.	Toyak.	September, October, and November.
	Lofs.		
Deer.	Olen.	Miniak.	

Spring bows are set, with a string leading to the path which they take. In April, and the beginning of May, they are chased on snow-shoes. At this season, the sun in the day-time thaws the snow, which the night frost hardens enough to support a man and dogs, though the animals always break through, and cannot extricate themselves. Immense numbers of deer are slain in August, on swimming across rivers in returning to the woods from the borders of the Icy Sea, whither they retreat in spring to shelter themselves from the flies and insects that infest the forests. Their migration is very curious. They herd all together; and I am told, that the males form the van and rear, while the females are inclosed in the centre: Bears and wolves follow them, destroying such as straggle from the main body; foxes lag behind and clear the remains. Thus do I account for the appearance of bears, wolves,

wolves, and foxes, so far beyond the forests. Eagles and other birds of prey hover over the deer at the time of their migration, and give the earliest intimation to the hunters of their near approach. On their taking the rivers, the hunters man their canoes; two men with spears in some, while others are occupied by boys and women, furnished with long cords, which they throw over the horns of the stabbed deer, and tie one end to stakes or trees on shore. I have not, however, been fortunate enough to see them at this time—Price, elk skin 2, doe skin, 1 ruble.

English Names.	Russian Names.	Yakut Names.
Bear.	Medved.	{ Ehea; from May till late in September—Middling Esse; skin, 1 ruble.
White Bear.	Beloi Medved.	- - - ; about the Icy Sea. We did not see any—1 ruble.
Glutton.	Ryfomag.	{ Siégan } ; all the winter; not numerous—2 to 10 and Begó } rubles.
Wolf.	Volk.	Beréh; never sought after in these parts—2 to 8 rubles.
Fox.	Leefits.	Safil; numerous, and much looked for in October and November—According to quality, 1 to 5 rub.
Stone Fox.	Peffets.	Kirfa; October and all the winter—50 copeaks.
Ermine.	Gornaftal.	Belilak; all the winter in woods near habitations, and frequently about the flour magazines—5 copeaks.
Lynx.	Rys.	E-us; autumn and all winter—3 to 10 rubles, according to the length of hair.
Otter.	Vüidra.	Itie; summer—8 and 10 rubles.
Sable.	Sobol.	Kies; very seldom caught about the Kovima—10 rub.
Sheep. } Argali. }	Baran.	Tshubek; about the mountains at the source of the Kovima, and all over the Virchoyanski chain to Kamtschatka—1 ruble.
Hare.	{ Zaits. } { Ushkan. }	Kobach; all the winter; but chiefly when the first snow falls—3 to 5 copeaks.
Marmot.	Tarbagan.	Tarbagan, } much esteemed by the Yakut for food and Kutier; } dress. They pass the winter under N ground,

ground, have several chambers in their holes, and lay in a considerable stock of grafs and sweet roots; also the nut of the cedar—5 to 10 copeaks.

English Names.	Russian Names.	Yakut Names.
Squirrel.	Belka.	Tee-ing; spring and autumn—3 to 5 copeaks; esteemed good eating by the different tribes.
Flying do.	Letushka.	Tirik-annat; annat is winged; tirik is skin—Of no value.
Striped do.	Burunduk.	Burunduk; 2 copeaks.

The three species of squirrel pass the winter in hollow trees, or under ground, in the same manner as the marmot.

Mountain.	} Pishuka.	} Kyla.	} never sought after—Worth nothing.
Whistlingrat.			
Sharp nosed.	} Mūish.	} Kutuyak;	
Com. mouse.			

The Birds consist of the following kinds:

English Names.	Russian Names.	Yakut Names.
Swan.	Lebed.	Kubah; appear about the 20th April, and depart in September.
Goose.	Goose.	Kaas; appears and goes a few days later.
Duck.	Utk.	Kus; are in great variety, and numerous.
Eagle.	Orel.	Baruldo; black.
Ditto.	Ditto.	Toyon; white head and tail.
	Skopa.	Umsan; of the eagle or hawk kind: darts in the water for fish.
	Yastrip.	Kirt.
	Kretchet.	Ditto.
	Korsheon.	Togolak.
	Sokol.	
Owl.	Filen.	Moksoghol and Karali.
Gull.	Chaika.	Kopta.
Small black head. Gull.	Marteshka.	Tiraghi.
Crane.	Zshurav.	Turuja.
Stork.	Sterch.	Kutelik.
Partridge.	Kuropatka.	Kabdfhi.
Raven.	Voron.	Sor.
Crows.	Varonna.	Tarak.

English Names.	Russian Names.	Yakut Names.
Divers.	Gagara.	Koghas.
Black Game.	Tetere	Ulöer.
Black woodpecker	Dsholna.	Kirgil.
Woodpecker.	Datä.	Tonoghas.
Swallow.	Lastoshka.	Karangachuk.
Thrush.	Drofd.	Tatsheger.
Snow-bunting.	Snegir.	Tulak.
Snipe.	Kulik.	Sulbaraga.
Cuckoo.	Kokushka.	Kuga.

The eagle and hawk kind, I am informed by the Yakuti, as also by the different inhabitants here, are dormant in hollow trees during the winter.

List of Trees, Bushes, and Berries.

Larch—This is the chief tree in use, for building, firing, &c. and the most plentiful. It is pretty sizeable as far as Virchni, and the country is moderately wooded about 200 versts lower, but the trees very stunted: beyond that, they are in clusters on elevated spots of ground to about 30 versts from the Icy Sea, where they cease growing, in about the latitude of $68^{\circ} 30'$.

Birch; extends to a little below Seredni; but very stunted and small trees.

Poplar and Asp; grow to a moderate size on the islands sheltered by mountains, about the source of the Kovima; but do not extend so low down as Virchni.

Mountain Ash; plenty as far as Virchnoi, but very scarce lower down.

Alder and Willow; have a trunk about 18 inches in circumference, and grow to the height of 2 fathom about Virchni. They gradually diminish in size, and cease growing with the larch.

Creeping cedar, brushwood, black and red currant, rose and juniper, are met with as low as Neizhni. Brushwood and creeping willows extend to the Icy Sea, but never exceed from 6 to 8 inches. The creeping cedar, or pinus cembra, produces a considerable quantity of seeds or nuts in cones, like the common pine; but they ripen only the second year. Immense numbers are collected by the inhabitants; sometimes a considerable quantity are found in the squirrels' nests in hollow trees; in fact, they are the chief food of squirrels and mice. A very pellucid and sweet oil is extracted from these seeds.

Berries.

Mountain ash berries; are gathered, and used to give a pleasant flavour to their drink.

Black and red currants; collected in abundance, and preserved in casks among ice; some

are boiled and preserved. The black only extend to about Seredni; but the red continue growing as far as Neizhni.

Cranberry—These are scarce, and extend no farther north than Seredni; they are always preserved raw.

Brusniki; *Vaccinium vitis idæa*; Whortleberry—These are very plenty as far as Neizhni, and are preserved raw.

Golubniki; are very numerous. They seem to delight in such stony places as are overflowed in the spring. They are very pleasant-tasted; of a dark blue colour; and grow on a low bush exactly resembling a myrtle. They are preserved by boiling.

Maroshka; *Rubus chamæmorus*—These are the favourite berry of the inhabitants, and grow in damp mossy places, particularly near lakes. They are reckoned a certain cure for the scurvy; and are always preserved raw.

Siecha; growing on dry stony places about the mountains, on a creeping species of heath, with short needle leaves; they are very small, black, and stony, are collected in great abundance, and preserved by boiling.

Knezshnitfi; *Rubus Arcticus*; are scarce, growing about the roots of the alder and currant bushes.

The inhabitants of these parts prepare their food in the following manner:

Besides boiling and frying fish, as is done in every country, soups are made of quabs, karas, and perch. The upper part of the head or gristle of the nelm, sieg, and tshir, are boiled, and served up cold as a whet, with salted onions, and the juice of cranberries instead of vinegar. They bone boiled fish, then beat them in a mortar to the consistence of paste, make it into the form of a pie, putting into it either the feld, the heads of salmon, or, which is reckoned best, the liver of the quab, and bake it, with or without onions.

The spawn of fish beat up in a mortar, sometimes mixed with flour, and fried with onions, is called baraban; if fried like a cake

cake without onions, and preserved berries put on the top, it is called shangee.

Pike are skinned, and beat up raw, with onions, wild thyme, and pepper, made into force-meat balls, and inserted in soups and fish pies; and sometimes made into cakes, and fried. They are called telnée.

The thick gut of fish, particularly the quab, is boiled, and served up cold, with different berries, by way of desert after dinner.

Their drink is the fermented juice of berries mixed with water. They make vinegar, or rather a good substitute for it, by fermenting onions with flour, or the pounded inner bark of the larch; and I thought it very good.

An infusion of wild thyme, of dog-rose leaves and stalks, and of the plant called tshernoi golovnik, is used instead of tea.

Tusks of the mammont are found very numerously about the sandy high shores of the river, at a considerable depth; and the spring floods washing away the sand discover them. I am not at all surpris'd at their being buried so deep; for every spring the flood leaves immense quantities of sand and earth on the shores of the rivers; perhaps to the depth of two to three inches, and among bushes much more. They are equal to elephants' teeth in whiteness and beauty, but very different in their shape, being all bent spirally, forming about one round and a half. The largest that we found, which was on the shores of the Icy Sea, measured as follows, French measurement:

Length,

			Feet.	Inches.	Lines.
Length, with the bend,	-	-	8	7	4
Distance from one end to the other, straight,	-	-	4	1	9
Circumference near the root	-	-	0	14	3
The thickest part 22 inches from the root	-	-	0	17	8
Of the middle	-	-	0	15	8
Of the point	-	-	0	9	5
Weight $137\frac{1}{2}$ lb. Russian weight, equal to 115 lb. weight avoirdupois.					

The outside was very brown from its having been exposed to the weather; and it was cracked through the coat, or upper stratum, about an inch. The inside was quite firm, and very white.

The horns of another animal are frequently found, adhering to a part of the skull, and resemble very much those of the buffalo. The elastic part of these are much esteemed by the Tungoose, &c. for strengthening their bows.

I am sorry that my want of knowledge in natural history, mineralogy, and botany, prevents my giving a better account of these almost unknown parts. Had we been accompanied by any skilful person, I should have made this science a chief part of my study. Situated as I was, I observed every circumstance as well as I could, and communicate my remarks in the best manner I am able.

I shall now lay before my readers the result of my inquiries among the inhabitants.

Daniel

Daniel Tretiakoff, a Cossack in the 90th year of his age, gave me the following intelligence:—" I came here in 1739 with a commissary, who was sent to collect tribute; and I was detained here as interpreter by Laptieff, who made an attempt to cross the Icy Sea, and returned late in the same autumn. Virchini was then inhabited by exiles, who were trading pedlars. Yukagers were very numerous then; and I believe they derived the name from one of their warriors: those of the Omolon, were called Tsheltiere; those of the Alasey, Onioki; and those of the Anadyr and Annui, Tshuvantfi and Kudinfi. Wars with the Tshutski and Koriaks, and fatal diseases, have almost extirpated the race. I have heard of a numerous nation inhabiting the Kovima, called Konghini, and think it was from them that the river obtained the name of Kovima. Remains of many villages were seen on the borders of the river, and numbers of stone hatchets, and stone pointed arrows, have been found about their ruins.

" There were but very few Yakuti when I first came; and I believe that none of them were here 70 years back. The provisions for supplies to Kamtschatka and Anadirsk used to be sent from the Kovima, up the river Annui, and down the Anadir. At that time traders frequently visited us, and very fine fables were caught in abundance, particularly about the Omolon.

" On Pavlutski's return from his first attempt to subdue the Tshutski, the ostrog at Neizhni was full of women prisoners. Numbers were returned; some he attempted to send to Russia, but every one of them died on the road."

He gave me the following account of Shalauoff's expedition in 1762:

" In

“ In the beginning of the year, Ivan Bachoff, his associate, an
“ exiled naval officer, died at Neizhni, and left Shalauoff to exe-
“ cute the enterprize alone. About St. Elias’s day he weighed
“ anchor from his winter buildings at the estuary of the Kovima.
“ His followers were exiles and runaway soldiers, not hired to
“ receive pay, but volunteers, to receive a proportionate share of
“ the produce of the voyage, intended in quest of ivory and furs.
“ Of such as could write and read he made officers, and the
“ subordinates were mutually agreed upon.

“ He had failed but a very little way before he encountered
“ contrary winds, which detained him till the 10th of August.
“ Much ice was in sight, but none near the vessel. He now
“ kept well in with the shore, passed Barannoi Kamen, and
“ reached a point of land to the east, which may be seen in clear
“ weather. Here the ice inclosed them three days, and damaged
“ the rudder, which, however, was soon repaired. This point
“ of land is the southern cape of a deep bay, at the entrance of
“ which is an island of moderate size.

“ The weather was very cold, and the crew wanted to seek for
“ a wintering place. Shalauoff, finding the sea moderately clear
“ of ice, endeavoured to persuade them to go farther; to which,
“ however, they would not agree; and on the 25th August he
“ steered into the bay, round the northern extremity of the island,
“ to seek a place wherein they might pass the winter; but as there
“ was neither wood nor fish to be obtained, and his crew would
“ not listen to his persuasions to continue their voyage, he was
“ compelled, against his inclination, to return to Neizhni. Here
“ his companions dispersed, but he himself went to Mosco. In
“ 1764 he undertook another voyage under the sanction of govern-
“ ment; but he never returned, nor was afterwards heard of.”

Dauerkin,

Dauerkin, our Tshutski interpreter, assured us, that Shalauoff's vessel was found drifting, near the mouth of the Kovima, in the autumn of the same year that he put to sea; and that his people were found frozen to death about 20 or 30 versts east of Barannoi Kamen in a tent, with provision, ammunition, and arms. I note this piece of information, although I think it very inconsistent, and do not believe it.

Affanassy Kassimoff, an inhabitant of Neizhni, who formerly resided at Anadirsk, assured me, that in the year 1766, or 67, the Tshutski brought him several paintings of Russian saints; that some of them had cloth jackets, and that they were desirous to get gunpowder. They said, that they had found these things on shore. This was in the spring of the year; and he supposed that it was the property of Shalauoff and his people, of which they had been pillaged, and afterwards probably murdered, by the Tshutski. They said that the articles were found to the north of the bay of Anadyr. I am inclined to think that Shalauoff doubled the capes, and was cut off in attempting to pass the winter among the Tshutski.

On the 23d September we obtained a few horses, and on the 25th dispatched the first party to Yakutsk with Mr. Bakoff. On the 28th, Mr. Saretshoff departed with the chief hands. Captain Billings and I followed on the 8th of October. We crossed the Alafey mountains at the source of the river of that name, and came into the same road that I had taken from Zashiversk, at which place we arrived the 22d October, and remained there three days: we then proceeded, crossed the Virchoyanski chain at the source of the Yana, and arrived at Yakutsk on the 13th November, after suffering inconceivable hardships from the seve-

O

rity

rity of the cold, and travelling on horseback. I computed the distance at 1300 versts in the summer season; but have every reason to believe, that it must be 2000 or 2300 versts, when travellers are compelled to go round the bogs and lakes, and to seek fordable places in the rivers: the Yakuti and Russians call it 2500 versts.

On the south side of the Virchoyanski mountains, the face of the country is less barren; and, in addition to the trees before mentioned, are the fir and common pine in abundance, and of large size.

CHAP. VII.

Meet with Mr. Ledyard, who travels with the Command to Irkutsk.—He is arrested by an order from the Empress, and sent under a guard to Mosco.—The Governor-General, Jakobi, called to St. Petersburg.—The Command arrives at Yakutsk.—Some particulars respecting Lackoff's Travels to the Icy Sea, 1770-3.—Chvoinoff's Journey thither in 1775.—The Command arrives at Ochotsk, but returns immediately to winter at Yakutsk.

AT Yakutsk we found, to our great surprise, Mr. Ledyard, an old companion of Captain Billings, in Cook's voyage round the world; he then served in the capacity of a corporal, but now called himself an American colonel, and wished to cross over to the American Continent with our Expedition, for the purpose of exploring it on foot.

Captain-Lieutenant Bering, who had been sent the 12th of February last from the Kovima, to superintend the forwarding the necessaries for the Expedition to Ochotsk, was also here. He had forwarded many articles during the summer, and sent some of the anchors and heavy baggage to the river Mayo, to be transported to Yudomski Krest by the water communication. The guns, medicines, sailors' clothing, &c. weighing upwards of 100 tons, still remained at Irkutsk, where they had lain ever since last winter.

Captain Billings resolved to go himself to Irkutsk to see these articles forwarded down the Lena so soon as the river should open in

the spring. Accordingly, on the 29th December, he set out with carriages on sledges, which we had made on purpose. Mr. Ledyard, Robeck, Leman, his first mate, and I, accompanied him; the Russian secretary and several necessary hands were ordered to follow with all possible speed.

We arrived the 16th January 1788, and I took up my abode with my friend Brigadier Troepolski.

The Captain began making preparation for transporting the guns, &c. and sent to build vessels on the Lena at Katshuga, where they were deposited.

In the evening of the 24th February, while I was playing at cards with the Brigadier and some company of his, a secretary belonging to one of the courts of justice came in, and told us, with great concern, that the Governor-General had received positive orders from the Empress, immediately to send one of the Expedition, an Englishman, under guard to the private inquisition at Mosco; but that he did not know the name of the person, and that Captain Billings was with a private party at the Governor-General's. Now, as Ledyard and I were the only Englishmen here, I could not help smiling at the news, when two hussars came into the room, and told me that the Commandant wished to see me immediately. The consternation into which the visitors were thrown is not to be described. I assured them that it must be a mistake, and went with the guards to the Commandant. Here I found Mr. Ledyard under arrest. He told me, that he had sent for Captain Billings, but he would not come to him. He then began to explain his situation, and said that he was taken up as a French spy, whereas Captain Billings could prove the contrary;

trary; but he supposed that he knew nothing of the matter, and requested that I would inform him. I did so; but the Captain assured me that it was an absolute order from the Empress, and he could not help him. He, however, sent him a few rubles, and gave him a pelisse; and I procured him his linen quite wet from the wash-tub. Ledyard took a friendly leave of me, desired his remembrance to his friends, and with astonishing composure leaped into the kибитка, and drove off, with two guards, one on each side. I wished to travel with him a little way, but was not permitted. I therefore returned to my company, and explained the matter to them; but, though this eased their minds with regard to my fate, it did not restore their harmony. Ledyard's behaviour, however, had been haughty, and not at all condescending, which certainly made him enemies.

I found a considerable alteration in this city; it, indeed, still continued the same hospitable and agreeable place for a visitor, but the harmony of the inhabitants was not so complete. Not to tire my readers with particulars, I shall only acquaint them, that there now existed a difference of opinion in the town, which led to the formation of two parties. However, at the latter end of March, the Governor-General, Jakobi, a good and worthy man, who had been particularly kind to our Expedition, was called to St. Petersburg. The heads of one party accompanied him, and harmony was again restored.

We remained here, enjoying excellent company and good living, with every rational entertainment, till the 10th of May, when we took our departure for Katshuga.

Thirteen vessels were nearly ready for transporting our guns, medicines, glass, sailors' clothing, and our own stores; and on the 15th, nine vessels being completely loaded, I received the charge of their conveyance to Yakutsk. The crews consisted of 50 exiles of the worst class, and six soldiers. On the very first day, I was under the necessity of inflicting punishment on one of them for a theft, and forbade all persons from leaving their vessel, appointing at the same time a soldier to go on shore for them every morning to make purchases of provisions for the day, and allowed each man a daily portion of brandy out of my own private stock. Whether this had any effect upon them as an indulgence, or that my determined manner of proceeding, and the severity of the punishment that I inflicted, more prevailed, I cannot tell; but I never saw people more active, attentive, and obedient, than they were all the rest of the way.

I arrived safely on the 4th of June at Yakutsk, and immediately crossed over with all the vessels to the opposite plains. On the 6th, I dispatched 150 horses, properly laden, for Ochotsk, under the charge of some soldiers. Horses were kept in readiness by Captain Saretshoff and Mr. Bakoff. The former gentleman took charge of the guns and all heavy materials, and conveyed them across the country about 300 versts to the river Mayo, where he had prepared vessels for their conveyance against the stream of that river and the Yudoma. On the 8th, Captain Billings arrived with the remainder of the articles, the greater part of which were still unpacked, particularly cloth, yarns, &c.

By the 15th of July, every article was forwarded, and all our hands, except a few attendants, and our naturalist, Dr. Merck, who went

early in the spring to the neighbourhood of the Viluye, or Vilui, to observe and collect the productions of those parts, from which excursion he did not return till the beginning of August.

During my stay in Yakutsk, I made it my particular business to get acquainted with Lachoff and his companions, with a view of obtaining some information concerning his travels to the Icy Sea. Lachoff was old and infirm, and recommended me, for any intelligence that I required, to one of his companions, Zaitai Protodiakonoff, now a burgher and shopkeeper in this town.

Protodiakonoff accompanied Lachoff in 1770 from his winter buildings at the estuary of the Yana, in the month of March, to Swatoi Nofs, the northern promontory of a bay which receives this river.

They saw an immense herd of deer going to the south, and observed that their traces were from the north across the Icy Sea. Lachoff resolved, if possible, to find out whence they came, and in the beginning of April set out very early in the morning, with his nart drawn by dogs. Towards evening he arrived at an island, 70 versts from the promontory, in a due north direction, where he passed the night, and the next day proceeded farther, the traces of the deer serving as a guide. About noon he arrived at a second island, 20 versts distant, and in the same direction. The traces coming still farther from the north, he continued his route. At a small distance from the second island, he found the ice so rugged and mountainous, as to prevent his proceeding with dogs. He observed no land; and therefore, after passing the night on the ice, he returned, and with great difficulty, for want of provisions for his dogs, regained Swatoi Nofs. He represented his
discovery

discovery to the Chancery of Yakutsk, and the intelligence was forwarded to St. Petersburg. The Empress Catherine II. called the islands by the name of the discoverer, and gave him the exclusive right of collecting ivory and hunting animals in this place, and in any other that he might thereafter discover.

In 1773, he went with five workmen in a boat to the islands, and continued across straits, where he found the sea very salt, and a current setting to the west. He soon saw land to the north, the weather being pretty clear, and arrived on what he called the third island. The shore was covered with drift wood. The land was very mountainous, and seemingly of great extent; but no wood was seen growing, nor did he observe the traces of any human being. He found some tusks of the mammoth, saw the tracks of animals, and returned (without making any other discovery) to the first island, where Lachoff built a hut of the drift wood, and passed the winter. One of his companions left a kettle and a palma on the third island.

This was reckoned a discovery of some importance, and the land-surveyor Chvoïnoff received orders from the Chancery of Yakutsk to accompany Lachoff to this farthest land, and take an exact survey of the same. In 1775, on the 9th February, he left Yakutsk, arrived on the 26th March at Ust Yansk Zemovia, or winter huts, at the estuary of the Yana. He immediately proceeded across the bay to Swatoi Nofs, which is 400 versts from the discharge of the river, in a direction north north-east. On the 6th May he arrived at the first island, which is 150 versts long, and 80 versts broad, on the widest part, and 20 versts on the narrowest. In the middle is a lake of considerable extent, but very shallow, and the borders of which are steep. The whole island,
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except three or four inconsiderable rocky mountains, is composed of ice and sand; and, as the shores fall, from the heat of the sun's thawing them, the tusks and bones of the mammoth are found in great abundance. To use Chvoinoff's own expression, the island is formed of the bones of this extraordinary animal, mixed with the horns and heads of the buffalo, or something like it, and some horns of the rhinoceros; now and then, but very rarely, they find a thin bone, very straight, of considerable length, and formed like a screw.

The second island is 20 versts distant from this; low, and without drift wood; 50 versts in length, and from 20 to 30 versts broad. Here also the tusks and other bones are found; and great numbers of the arctic foxes are to be met with on both. The surface is a bed of moss of considerable thickness, producing a few low plants and flowers, such as grow about the borders of the Icy Sea. This moss may be stripped off as you would take a carpet from a floor, and the earth underneath appears like clear ice, and never thaws: these spots are called Kaltusæ.

The straights to the third island are 100 versts across. He travelled along the shore; and on the 21st May discovered a very considerable river, near which he found the kettle, palma, and some cut wood, in the same place and situation as they had been left by Lachoff's companions three years before Chvoinoff's arrival. This river he called Tzarevaia Reka, in consequence of having discovered it on the 21st of May. The shores were covered with drift wood, all of it extremely shattered. Ascending to the top of a very lofty mountain, he saw a mountainous land as far as his eye could trace in clear weather, extending east, west, and north. Continuing his route along the coast 100 versts, he

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observed

observed three rivers, each of which brought down a great quantity of wood, and abounded in fish; and here the nerka, a species of salmon frequenting Ochotsk and Kamtschatka, was in abundance, though not found in the Kovima or Indigirka. On this land he passed the summer, and returned in the autumn to Swatoinofs.

I asked, whether he observed any regular ebb or flow of the tide? He said, that "he did not observe any remarkable alteration." Whether he recollected how the current set? "He believed to the west." Whether the water was salt? "Yes, and very bitter." He further observed, that there were whales and belluga, white bears, wolves, and rein-deer. No growing wood was to be seen, and the mountains were bare stone. None of these travellers took any notice of the depth of the water, nor were they acquainted with the nature of tides.

This was the total sum of intelligence that I was able to obtain concerning this land; and I am told, that since Chvoynoff no traveller has paid a visit to it. Perhaps the three rivers observed are only so many discharges running from one that is very considerable.

On the 11th of August we again set out from Yakutsk for Ochotsk, accompanied by the Captain of the district, to examine into the state of numerous articles that had been scattered on the road, owing to the loss of horses. On the 23d we crossed the White River, without the least difficulty, and arrived on the 31st at Yudomsky Krest; where we found our guns and heavy baggage all safely arrived, and were informed that Mr. Saretshoff had set out for Ochotsk four days before. I believe this to be the

the first instance of baggage of any kind having been transported from Irkutsk to this place in one season by the water conveyance.

We arrived at Ochotsk the 6th of September, and found every thing going on in the best order with spirit and alacrity. Observing, however, that our ships could not be ready for sea before next July, Captain Billings resolved upon returning to Yakutsk to pass the winter. Captain Saretshoff proposed surveying the coast of the sea of Ochotsk, as far as the Chinese frontiers, in an open boat; and Captain Billings promised to meet him in the ensuing month of June at the discharge of the Aldima, to which place he purposed going by land and water, with Tungoose guides from Yakutsk. Matters being thus settled, on the 12th September Captain Billings, Mr. Robeck, and I, again exposed ourselves to the dangers and difficulties of a journey on horseback of 1200 versts at so late a season of the year. We got into severe winter at Yudomsky Krest on Wednesday the 20th September. The next morning we had 20° below the freezing point of Reaumur, and the river was full of drifting ice; notwithstanding which, Captain Billings attempted to go by water to Ust Mayo; but the second day we were frozen up, and obliged to return on foot to the Krest. We obtained horses, and proceeded on the 27th September; but the severity of the weather and bad roads prevented our reaching Yakutsk till the beginning of November 1788.

I now observed, that the officers of government at Yakutsk were suddenly become wealthy; that some, who with difficulty procured the common necessaries of life on our first arrival in this town two years ago, were now enabled to keep a carriage, with every thing suitable to that style of living; and, upon the strictest inquiry,

inquiry, I found, that these gentlemen were the volunteers who were so active in procuring horses for the use of the Expedition.

During the winter, I employed myself in procuring the best intelligence that I could obtain, in addition to what I already knew, concerning the Yakuti; and the result I shall communicate in the following Chapter.

CHAP. X.

Account of the Yakuti, collected from personal inquiry and research.

THE nation known among the Russians by the name of Yakuti call themselves Socha, and say that they came originally from the south. A nation of Mongals inhabit the district of Krasnoyarsk, extending to China, who also call themselves Socha, and speak the same language as the Yakuti. These relate the following story of their migration.

The Toyon (i. e. Chief) Omogai Bey, with all his tribe and cattle, left the fertile plains situated to the west of the lake Baikal, or Baighal, to make way for a more powerful horde; retreating to the grassy meadows between Irkutsk and the river Lena, now known by the name of the Buratski Step. Here he resided some years, probably at continual strife with the Burati; for he was compelled to fly from their fury, availing himself of the decreasing moon, at which time the Burati never attack their enemies. Omogai crossed the Lena, at a spot between where Katshuga and Vercholenisk now stands. He kept close to the river, making resting-places where he found pasture for his cattle, until he arrived at the estuary of the Olekma. In this neighbourhood are meadows affording plenty of grass, the rivers are abundantly stored with fish, and the woods replete with wild beasts. He might, indeed, have found places equally eligible before he came so far to the north; but these were the resort of the Tungoose, and he would have exposed himself to their depredations;

tions ; for the Asiatic tribes, as well as those of America, were inveterate enemies to each other, and skirmishes were the sure consequences of meeting in their hunting parties : even now these frequently happen. While Omogai was in this situation, two of his hunters fell in with a man of their own race, who was called Aley, or Eley, and had made his escape from the Burati. They took him to Omogai's who employed him as his labourer. His remarkable strength, skill, and activity, soon recommended him to Omogai's particular notice, and he was entrusted with the management of some excursions. The astonishing success that attended all his enterprises, induced Omogai to make him overseer of all his tribe and effects, which latter were considerably increased by the prudence of Aley's management ; and, in consequence of this increase, the chief was obliged to extend his possessions to the vicinity of the present town of Yakutsk and the opposite plains.

Omogai, who had a daughter by his wife then living, and a young woman whom he had adopted, was old, jealous, and dreaded the effects of Aley's power. He observed, that all his tribe esteemed Aley to adoration ; for they supposed him to possess supernatural powers, and attributed his continual good fortune and success to the immediate influence of spirits. This made him uneasy ; and, with a view of securing his possessions and his name, he offered Aley his daughter in marriage. Aley now avowed himself a Shaman, and assumed the powers of divination. He told Omogai, that his daughter would never have children, and therefore he would not take her ; but demanded the young woman that the chief had adopted, with whom he should have a numerous family. The mother violently opposed this union, but Omogai at length consented. Aley's life was soon rendered very unpleasant by the persecution of the mother and daughter ;

daughter; but, having received very liberal presents from Omogai at the time of obtaining the eldership of the tribe, and as rewards for his careful management not only of cattle and horses, but also of men and women labourers, he was in possession of independent wealth; and therefore retired, with Omogai's consent, two days' journey from his habitation, and established himself on the plains 18 versts north-west of the present town of Yakutsk, by the side of a branch of the river Lena, now dry. Here he remained till the death of his benefactor, when the greatest part of the tribe came over to him. Aley, who was now become extremely powerful, is reported to have had 12 sons and several daughters (Ghanghalas, or Chanhallas), the eldest of whom was the founder of the Ghanghalaski tribe. The remaining history of Omogai's wife and daughter I have not been able to learn; but the tribe is now known by the name of Batulinsk. It is said to be about 300 years since Omogai migrated hither.

The Batulinski tribe was afterwards increased by a number of the Chorintsi Burats; but the time of their union is unknown. I am inclined to think that their language was different; for if a Yakut be not immediately understood by his brethren, he expresses his dislike to repeat the sentence, by saying, "I spoke not with the tongue of a Chorintsi." They know not whence they obtained the name of Yakut, but call themselves Socha in the plural, and Sochalar in the singular; I attribute the name to the founder of the town of Yakutsk, or to the name of the discoverer of these people; for Yakutoff is no uncommon name among the Cossacs in the government of Irkutsk.

The first intelligence that Russia obtained of these people was in 1620, when they were discovered by the Cossacs that inhabited

bited the Mangazey. At that time they were divided into many tribes; and the dissensions that existed among them contributed to their being subdued.

Millach is the first chief reported to have gone over to the Russians. He had a small tribe, which separated from the Ghanghalaski, under the charge of the chief Tygin. Millach inhabited a hill on the eastern shores of the Lena, 60 versts below Yakutsk, called Tshebedal. He supplied the Russians with food, and gave them 40 archers to subdue Tygin and his tribe, which was accomplished on Tygin's falling in the field. Tribute was collected in 1630, and in 1632 the first ostrog was built among them on the mountain Tshebedal, but afterwards removed to the place where the town now stands. Millach's tribe is now known by the name of Namski Ulus, or Our Tribe, a name given to it by the Russians.

Their number is computed at Yakutsk to be 50,000 males; but I am inclined to think that they are not so numerous; and my reasons are these: They say themselves, that in 1780 they were more numerous than they are now, much better circumstanced, and in an increasing state. At that time they had only one Commander and his Assistant*. Upon the Socha chiefs bringing their annual tribute, they always observed the custom of shewing their particular attachment, by making these gentlemen a

* I am here induced to remark, that before the Empress Catherine II. established governments and courts of justice throughout the empire (1782), all these distant towns and districts were governed by a voyavod and his secretary, and Cossacs were sent among the tributary tribes to enforce the imperial mandates. On the establishment of the government, every town had its mayor and different courts of justice allowed; so that there now exist many towns in these remote parts, where the inhabitants consist of government people only.

trifling present of furs, horses, and cattle, and supplying their table with flesh, fish, milk, and butter, and also with wild fowl. Considering their immense possessions, and the cheapness of all the articles, these presents were never felt as of any consequence by the individuals who made them. At present, however, their stock is considerably diminished, not amounting to one tenth part of what it was. Instead of having only the voyavod and his secretary to deal with, they now know not how many commanders they have to pay their respects to. A commandant, a captain of the district, a director of economy, judges of the different courts of justice, with their secretaries and dependants, and other officers, are occasional travellers among them ; beside which, they complain of numberless exactions according to the arbitrary will of their superiors, only authorised by their own presumption.

These circumstances undoubtedly discourage the activity of the Yakut, who no longer endeavours to procure wealth, because it is the likeliest means of making him the object of persecution. Thus property, tranquillity, and population decrease. The princes or chiefs dwelling near towns acquire their luxuries, and oppress their dependant tribes to procure wine and brandy in addition to their koumis: this was never known among them till the year 1785. I will farther add, that in 1784 the district of Giganfk produced 4834 tributary natives; but in 1789 their number amounted only to 1938. Mr. Bonnar, the captain of the district of Zashiverfk, told me, that the tributary nations in his circle amounted to only half the number that they were five years ago and that these were very poor indeed. To my certain knowledge, upwards of 1500 Yakuti are hired as labourers by the inhabitants of the town of Yakutsk ; their wives dwell with the tribes, and do not see their husbands for years. However, I have some other
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reasons, which will be mentioned hereafter, to account for the decrease in the population of this nation.

Of the first huts about the river Newya, near Olekma, and all along the river Lena to its estuary, the inhabitants are in indigent circumstances; as are also those of the Ochot, Amicon, Momo, Indigirka, Alasey, Kovima, and Jana, who select such plains as afford food for their cattle; while the mountains are the places of resort of the Tungoose. The Yakuti that inhabit the Vilui, Aldan, Ud, and all the intervening plains, are immensely rich in cattle.

There is perhaps no nation in the world that can exhibit a greater variety with regard to size. The affluent, whose dwellings are situated about the meadows on the south side of the Virchoyanski chain, are from five feet ten inches to six feet four inches high, well proportioned, extremely strong, and very active; while the indigent inhabitants of the more northern parts are in general below the middle size, indolent, and of an unhealthy complexion, evidently stunted by the badness of their food, the severity of the climate, and the want of proper cloathing. Their wealth consists in horses and horned cattle. The private property of no individual at this instant exceeds 2000, all species included; formerly, numbers of them possessed 20,000, according to their own testimony, and that of the old Cossac before mentioned.

With regard to their capacity of supporting themselves, they are independent. Their only necessaries are, a knife, hatchet (or palma), flint and steel, and a kettle; and with these articles the all-providing hand of God sufficiently supplies them, and capacitates them to furnish the other tribes. From the iron ore of the
Vilui

Vilui they make their own knives, hatchets, &c. and of such temperature as baffles the more enlightened art of the Russians. This ore may be called native iron, from the little trouble they have in preparing it. Every utensil and article of dress they make themselves.

In their roving parties, on the chase or travelling, they only take with them a scanty supply of koumis, depending on chance for the rest; and should their pursuits prove unfortunate, they find their food in the inner bark of the pines and birch-trees, or the different edible roots. Squirrels are very good eating, but their favourite food is the whistling marmot.

RELIGION.

The Socha regard themselves as in a perfect state of demonocracy. In general conversation, they call God, Tanghra; a church, Tanghra Dshi, God's house; and Sundays, Tanghra Kuin, God's day. I could not obtain any explanation of the attributes of Tanghra. Those of other gods they explain as follows:

Aar Toyon (the merciful chief): To him they attribute the creation, and suppose him to have a wife, whom they call Kubey Chatoon (shining in glory): they are both all-mighty.—Another god, named Wechsyt (the advocate), carries up their prayers, and executes the resolutions of the godhead: Wechsyt, they say, used frequently to appear among them, and still continues now and then to shew himself, assuming the form of a white stallion, or different birds, from the eagle to the cuckoo.—Sheffugai Toyon (the protector): he intercedes for them, and procures all desirable things, as children, cattle, riches, as well as all good and comfortable

fortable things : his wife they call Akfyt (the giver).—These are their benevolent gods ; and I may add to the number a being which they adore in the sun : to these they offer sacrifices only once a year. They attribute a particular being to the fire, and constantly offer sacrifices, supposing him equally possessed of the powers of good and evil.—Their malevolent spirits are very numerous ; for they have no less than 27 tribes or companies of aërial spirits : their chief they call Ooloo Toyon : he has a wife and many children : Sugai Toyon (the god of thunder) is his minister of immediate vengeance (Sugai is hatchet) : the rest they distinguish by the names of different colours. Cattle and horses are sacred to the different spirits whose colours they bear. They also reckon eight tribes of spirits inhabiting Mung Taar (everlasting misery). Their chief is called Asharay Bioho (the mighty) : these have wives, and the cattle sacred to them are quite black : their departed shamans are supposed to unite to these. They are in great dread of another evil goddess, whom they call Enachfys (cowherdess) : she damages the cows, inflicts disorders on them, destroys calves, &c. and is frequently honoured with offerings to be propitious to their stock.

CEREMONIES.

Their holidays commence with the month of June, and last about 15 days. The mares having cast, a short time is allowed the colts to suck, that they may acquire strength ; they are then tied up, or pent in coops about the hut, to prevent their sucking at will ; which is only allowed twice a day, when the mares are milked. The milk is collected in fymirs, or large leather buckets formed like a bottle, wide at bottom, and narrow at the top, each

containing about an anker ; into this a small piece of the stomach of a calf or colt is thrown, and some water mixed with it. It is then kept in constant agitation by a broad-ended stick, until it ferments, and acquires an agreeable acidity, which is very nourishing ; and if taken in great quantities, it has an intoxicating quality. Of this drink, which they call koumis, every one collects as much as he can ; and some of the chiefs obtain more than 500 ankers of it. A day is then fixed upon by each chief to consecrate his stock, which is performed as follows :

A summer hut is built of thin poles of a conical form, covered with the inner bark of birch, on some extensive meadow. It is ornamented inside and out with branches of the birch-tree, and a hearth is made in the centre. Relations and acquaintances are invited to the banquet ; but all guests are welcome of every nation indiscriminately. The magicians take the head seats ; others are seated according to the estimation of their seniority*.

When the hut is full, the elder shaman rises, and commands one of the Socha that he knows to be qualified (namely, that has not seen a corpse within the month, and that has never been accused of theft, or bearing false witness against any body, which defiles them for ever, and renders them unqualified for this sacred and solemn task) to take a large goblet, called a tshoron, which is used to drink out of on solemn occasions, and fill it with koumis out of the first symir ; then to place himself before the hearth, with his face to the east, holding the tshoron to his breast about

* Years do not secure the title of senior, (Oghonior,) which is the greatest term of respect that the Socha know. Magicians have it, and all such as are capable of advising the proper means to be adopted to secure success to such public and private concerns as are virtuous and good.

two minutes. He then pours koumis three times on the hot embers, as an offering to Aar Toyon. Turning a very little to the right, he pours three times to Kubey Chatoon; then to the south he offers in the same manner to each of the benevolent gods. With his face to the west, he pours three times to the 27 tribes of aërial spirits; and three times to the north to the eight tribes of the pit, and to the manes of their departed forcerers. After a short pause, he concludes his libation by an offering to Enachfys the cowherds. The forcerer then turns the man with his face to the east, and commences a prayer aloud, thanking the god-head for all favours received, and soliciting a continuance of their bounty. On concluding his prayer, he takes off his cap, with which he fans himself three times, and cries out aloud, "Oorui!" (grant) which is repeated by all present. The elder shaman then, taking the tshoron, drinks a little, and hands it to his brethren of the same order; from whom it passes to the company as they sit, except such as are defiled. Women are not admitted into the hut; nor are they, or the disqualified, allowed any of the koumis out of the first fymir, which they call sanctified, as possessing the power of purifying and strengthening in a divine sense.

They all now go out of the hut, and seat themselves on the strewed branches of birch, in half circles fronting the east. All the fymirs are carried out, and placed between the branches of trees stuck in the earth, and they commence drinking; every crescent having their fymirs, tshoron, and presiding shaman, who fills the goblet, and pushes it about with the course of the sun. The quantity that they drink is incredible. Tournaments now begin, wrestling, running, leaping, &c.; and if any one carry off the prize in all the achievements, he is esteemed as particularly favoured by the deities, and receives more respect and credit

credit in his testimony than falls to the lot of a common man. When the ceremony is finished, they mount their horses, forming half circles, drink a parting draught, and, wheeling round with the sun's course, ride home. Women attend, and form parties among themselves at some distance from the men, where they drink, dance, &c.

MAGICIANS, OR SHAMANS.

Men and women are both admitted to this order ; but very few of the latter, as particular circumstances attending their birth or infancy can alone authorise their inauguration. Young men are instructed by an old professor, who accompanies them by day and night to the most solitary parts of the woods ; shews them the favourite spots of the spirits of the air, and of the pit ; and teaches them to cite their appearance, and claim their influence. I have heard most wonderful relations of their power, even from the Russians ; but, notwithstanding I have seen their enchantments or incantations many times, I never could discover any of their feats equal to that of a common conjurer in England. The following is an account of their performance :

When a sick Socha sends for a shaman to appease the wrath of the evil spirits that torment him, the forcerer takes a switch, ties a few hairs from the mane of a horse to the end of it, walks and jumps about the sick person, waves his switch, and conjures the demons to appear and relate the cause of their tormenting him, and how they are to be appeased.

After some time has passed in this invocation, he starts, pretends to see the spirits, and, listening to their admonition for some time,

time, turns to the patient, and tells him whence the spirits came ; that it was with a view of destroying him, but that they might be induced to accept as a sacrifice, instead of him, a fat mare or a cow, mentioning the particular colour. This is immediately procured ; for whoever has one answering the description readily gives it.

The offering being procured, the shaman dresses himself in full form, walks with his switch to the possessed, embraces him, and commands the demons to leave him ; then, rising in great agitation, he suddenly springs upon the offering, raving and shouting as much as he possibly can : the beast now starting, and being restless, is a proof of the pain that it endures from the demon.

The following morning the sacrifice is led to the place appointed, which is always on a rising ground at the entrance into a wood. Four poles are driven into the ground, on which they erect a stage covered with twigs, whereon the offering is slain and skinned. The flesh is dressed and eaten on the spot ; the bones collected, wrapped up in the twigs that were on the scaffold, put inside the skin of the animal, and stuck at the top of some tree on the spot : if the sacrifice was to the ærial spirits, the head is directed upwards ; if to the spirits of the pit, the head is looking downwards. The forcerer then, arrayed in his magic robes, takes his tambour, and begins his formal spells ; beating his tambour, raving, jumping, and using an unintelligible jargon in the most extravagant manner ; his long hair hanging over his face, he conjures the spirit of the sacrifice to its demons, and the demons to their proper place of retirement ; seems, several times during his incantations, to faint, during which paroxysms he receives the inspired power of prognosticating the fate of the diseased, and the day either of his restoration to health, or of his death. If
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he prove mistaken, it is not regarded as arising from want of skill, but the unacceptableness of the sacrifice, which is occasionally renewed till he dies or recovers.

If a shaman acquaints any family that some demon is intent on inflicting a punishment, offerings are made to avert the evil; not of live beasts, but the rich skins of animals, which are hung up in a conspicuous part of the hut, and buried with the owner when he dies.

The magician's dress is a leather jacket, with sleeves from the shoulder to the elbow; along the outer seam, long slips of leather are sewn, as also round the bottom, hanging to the ground. The jacket is covered with iron plates, and pieces of iron and brass hanging, which makes a dismal noise while he is leaping about and beating his tambour. He has also a piece of leather, like a long apron, reaching from his chin to his knees, tied before, and ornamented in the same manner. His tambour is very large, and also ornamented in the edges and cross bars with iron and brass; and his stick is covered with the skin of some short-haired animal. He also wears, at the commencement of his incantations, a fur cap; but this he throws off almost as soon as he begins his magic spells.

METHOD OF DIVIDING TIME.

The year they call gil, and divide it into four seasons, faas (spring), foyin (summer), kuifan (autumn), and kifun (winter). A month they call ooi; of these they have 12 in the year, of 30 days, adding a supplemental moon for the deficiency every sixth year. Their months are named as follow:

R

Besia

Befia	Budding month	May
Otti	Hay ditto	June
Ottershachia	Hay forks stacking	July
Tierdinnai	Fourth	August
Bessinnai	Fifth	September
Altidnai	Sixth	October
Settinnai	Seventh	November
Okfinnai	Eighth	December
Tochfinnai	Ninth	January
Ollunnai	Tenth	February
Koluntutor	Stallion	March
Buffustur	Thawing	April.

They have no specific name for the supplemental month every sixth year.

They know the time of night by the situation of the great bear and the polar star: the former they call araghas solus.

Of the approaching seasons they judge by the following phenomenon. If the pleiades, which they call oorgel, appear before the moon when seven days old in the month of January, they expect spring to commence in the beginning of April; if when nine days old, at the end of April; but if this happens on the tenth day, they expect a late spring, and begin to be very saving of their fodder. They reckon distance by time; and 30 or 40 versts, according to the goodness of the roads, make a day's journey.

PUNISHMENTS, CUSTOMS, SUPERSTITION, &c.

I have not traced any atrocious vices among the Yakuti or Socha. Robberies are seldom committed; sometimes, indeed, they

they lose cattle ; but this I believe to be more the effect of their straying than their being stolen, as detection is almost certain ; for they have an astonishing memory, and relate all their losses at every public meeting, as weddings, &c. ; and if any one has in his travels seen such a beast as is described, he relates where and when : thus they are traced, and the punishment is, not only restoration to the party injured, but the thief is compelled to make good all the losses of the other Yakuti during the year, whether he has stolen the property or not. If an accusation be laid against any by his companion, of having stolen and eaten or killed cattle, he must either pay for the same, receive a flogging (which is very disgraceful), or take an oath of his innocence ; and, should an innocent man be accused, he will, in general, rather pay for them than take the stipulated oath, which is administered with the following ceremony :

A magician places his tambour and dress before the fire, the embers of which are burning. The accused stands before it, facing the sun, and says : “ May I lose during my life all that
“ man holds dear and desirable, father, mother, wives, children,
“ relations ; all my possessions and cattle ; the light of the sun,
“ and then my own life ; and may my spirit sink to eternal misery (mung taar), if I be guilty of the charge laid against me ! ” The magician throws butter on the hot embers ; the man accused must then step over the tambour and dress, advance to the fire, and swallow some of the exhaling smoke from the butter ; then, looking to the sun, say, “ If I have sworn false, deprive me
“ of thy light and heat. ” Some of the tribes close the ceremony by making the accused bite the head of a bear ; because they allow this beast to have more than human wisdom, and suppose that some bear will kill the aggressor.

They are very revengeful of insults ; nay, even entail revenge on their progeny : nor do they ever forget a benefit received ; for they not only make restitution, but recommend to their offspring the ties of friendship and gratitude to their benefactors. They are very obedient to their chiefs and oghoniors, and shew their attachment by frequent visits and presents. They are extremely hospitable and attentive to travellers, especially to such as behave with a degree of good nature, and very inquisitive and intelligent ; for they ask questions freely, and answer any without embarrassment or hesitation. They are anxious to secure friendship and a good name, and seem to study the dispositions of such as may be of service to them, to whom they are liberal in presents, and even in flattery. They deliberate in council on all matters of public concern, as the course to be taken by each in the chase, &c. The oghoniors are surrounded by the rest, and their advice is always taken. I have never seen an old man contradicted or opposed, but always as implicitly obeyed as a father of a family. A young man ever gives his opinion with the greatest respect and caution ; and even when asked, he submits his ideas to the judgment of the old.

The Yakuti are a healthy and hardy race, bear the extremes of heat and cold to an astonishing degree, and travel in the severest frosts on horseback, frequently suffering much from hunger ; they are, however, subject to rheumatic pains, boils, the itch, and sore eyes ; and great numbers were carried off in 1758 and 1774 by the small-pox and measles : the shamans are their doctors. They are extremely superstitious, and almost every tribe has its object of veneration, but not of worship, as the eagle, the swan, the stallion, &c. Ravens, crows, and cuckoos, are ominous birds ; if these perch near their huts, they dread some misfortune, which

is only to be averted by shooting the bird. Eagles and large birds of prey are, on the contrary, the foreboders of good. They always take care that the doors of their huts shall face the east. The fire-place is nearly in the middle; the back of the chimney towards the door, and a free passage quite round it. The sides of the hut are furnished with benches and small cabins, which serve for sleeping places. The bench extends about four feet into the hut, where the inhabitants sit. The men keep the south side, and the women the north. Except the hostess, no woman may give any thing to eat or drink to a male stranger before the fire-place, but must walk round the chimney to present it.

They never wash any of their eating or drinking utensils; but, as soon as a dish is emptied, they clean it with the fore and middle finger; for they think it a great sin to wash away any part of their food, and apprehend that the consequence will be a scarcity. Their earthen vessels they keep extremely clean, because they can make them so by burning, in which case the fire accepts the remains that adhered to the sides. Before they begin to eat any thing, they throw a small spoonful into the fire as an offering of thanks. The rich are esteemed to be under the protection of the gods; but the poor are rejected as forsaken, and only protected by their relations, or obliged to hire themselves out to work. Every Yakut bears two names, and is never called by the right, except in cases of necessity; thus they think they evade the search of the evil spirits bent on tormenting them. They never mention the dead, except allegorically, and leave the hut to ruins wherein any one has expired, thinking it the habitation of demons.

Travelling;

Travelling with Captain Billings to the river Mayo, I observed the following offering in the hut of Surtuyea Birdugin, an unchristened prince or chief, to Sheffugai Toyon and his wife Akfyt, for the blessing of children, called Ogo Oyetto, the child's nest. It was a horse-hair cord tied round the chimney, leading to the sleeping place of the host and hostess, ornamented with bunches of horse hair. Two round pieces of the bark of birch, to represent sun and moon, suspended; also the representation of a stallion and a mare formed out of the bark, and a few wooden dolls dressed. The cord was fastened to the post at the head of their bed, where was placed a wicker basket with moss and fur at the bottom; and on a little table in the basket was set a very small wooden bowl, containing boiled flour; all of which was placed by a shaman with great magic ceremony. The prince has three wives, and was married 15 years without having had any children before this offering was made; but afterwards each of his wives bore their share of children, and he has now six sons and daughters. This account was related to Captain Billings and me in the presence of Mr. Hornofsky, the captain of the district of Yakutsk, by the prince himself: each wife has her separate dwelling some miles distant from either of the others; and a similar offering is placed in each of their huts.

At the time of parturition, the husband is called, and two skilful women in his presence assist the delivery. If a son be born, a fat mare is killed on the third day; all the neighbours are invited to supper; the child is rubbed all over with fat, and a name given to it,—the more insignificant the better, for an elegant name would entice the demons to be continually about it. No ceremony is observed if the child be a daughter.

MARRIAGE CEREMONY.

The ceremony of buying a wife is extremely formal and tedious. A young man who wishes to marry sends his friend to ask the consent of the bride's father, and what kalym (purchase) he demands; that is, how many horses and cattle, as also the quantity of raw meat, horse flesh, and beef, that he requires for treats and feasts: this they call kurim; half of the quantity is always given in presents to the bridegroom by the bride's father, and is called yrdy. The daughter's inclinations are always consulted; and, if she does not object, the kalym and kurim are stipulated. The bridegroom kills two fat mares, dresses the heads whole, and the flesh in pieces, and goes with three or four friends to the father of the bride. On his arrival at the hut, one of his friends enters and places one of the dressed horses' heads before the fire, and returns to his companions without speaking a word. They then all enter the hut, and, a forcerer being placed opposite the fire, the bridegroom kneels on one knee with his face towards it, into which butter is thrown; he then lifts up his cap a little, and nods his head three times without bowing his body. The forcerer pronounces him the happy man, and prophesies a succession of happy years, &c. Then the bridegroom rises, bows to the father and mother, and takes his seat opposite the bride's place, but keeps silent. The meat is then brought in, and the father of the bride distributes it among his own friends, but kills a fat mare to treat his new guests. Supper being over, the bridegroom goes to bed; the bride, who has not been present, is conducted into the hut and to his bed by some old woman, and they sleep together; sometimes, however, the bride does not appear at the first visit. In the morning, the friends return home; but

but the bridegroom remains three or four days. A time is now fixed for the payment of the kalym, either at the new or full moon. The kalym and kurim are then carried, without any ceremony, and delivered in the presence of many friends, who are feasted, and the bridegroom remains again three or four days, and fixes a time to receive the bride at his own dwelling, which must be new built on purpose, and this also at the new or full moon. All her relations, male and female, with friends and neighbours, sometimes more than a hundred, accompany the bride with her father and mother, taking with them eight or ten fymirs full of melted butter, and the dressed meat of three fat mares. They go to the new hut prepared for them; three men are sent to the bridegroom in his old hut, and the greatest drinkers are chosen for this purpose. On entering, the first says, "We are come to see your dwelling, and to fix posts before your door." They then kneel on one knee before the fire. An ayach * is filled with koumis, and handed by two men to the three kneeling, each of whom empties an ayach at three draughts. They then rise and go out, all the company saluting them with one cheer. Three others enter; the first with nine fables, the second with nine foxes, and the third with 27 ermine skins: these they hang on a peg in the chief corner of the hut, and retire. Then a number of women conduct the bride, her face being covered with ermine skins, to the hut; the entrance has a wooden bar placed across it, but of no strength, which the bride breaks with her breast, and enters the hut. She is placed before the fire, holding her hands open before her, into which seven pieces of sticks are put; as also several pieces of butter, which she throws into the fire. The shaman pronounces a blessing; she then rises, and is again con-

* An urn-shaped wooden vessel with three legs, which contains from two to four gallons.

ducted, with her face concealed all the while, to the new hut, where the cover is taken from her face. The bridegroom enters, and feasts his guests two days; then presents all his relations with cattle, over and above the kalim; which is, however, returned, on paying their formal visits, perhaps a year or more afterwards. Polygamy is allowed, and some have six wives; but the first is respected by all the rest; they dwell in separate huts; and in case of bad conduct they are returned home, and the greatest part of the kalim is given back. This, however, very seldom happens: I have not been able to hear of a single instance.

BURIALS.

The corpse is first dressed in the best apparel of the deceased, and stretched out; the arms tied tight round the waist; then inclosed in a strong box, with the knife, flint, steel, and tinder; also some meat and butter, "that the dead may not hunger on the road to the dwelling of souls." A shaman presides; the wives and relations accompany the procession to a certain distance; the favourite riding-horse of the deceased is saddled and accoutred, with hatchet, palma, kettle, &c. and led to the place of interment, as is also a fat mare. Two holes are dug under some tree; then the horse is killed, and buried in one, while the corpse is laid in the other. The mare is killed, dressed, and eaten by the guests; the skin suspended on the tree, under which the body lies with the head to the west. The shaman takes his tambour, and invokes the demons to let the spirits of the departed rest in peace, and finishes the ceremony by filling up the grave. A shaman is buried with the same ceremony, and his tambour with him. If an elder brother die, his wives become the property of the
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younger;

younger; but if a younger brother die, his wives are free; yet they seldom marry again, except they be very poor.

Their dress is much more complete than that of the Tungoose; and the more wealthy among them wear a cloth coat lined and trimmed with fur, with tight and well made pantaloons; but their boots are ill shapen. The women dress very like the Tungoose, but are in general not so clean or sprightly.

EMPLOYMENT.

About the 25th of June, at the conclusion of their holidays, they commence their summer occupation by collecting a great supply of the inner bark of the pine and birch, which they dry on racks in their huts: hay-making and fishing then occupy the time till berries are ripe, when they collect an immense quantity, and boil to preserve them. In the beginning of October they kill their winter stock of cattle for food, and let it freeze, which preserves it fresh and good; of course they save so much hay. In October and November they catch fish under the ice. Toward the end of the latter month, they go out on the chase: for wolves and foxes they place in their tracks poisoned baits of corrosive sublimate, which they call fullima, and also of nux vomica (Tshillebucha); besides having traps set, spring bows, &c. They are very expert archers, and have a plentiful supply of arrows in their quivers.

The women make all their cloathing, look after the cattle, milk the cows and mares, chop wood, dress food, &c.

They have no amusements beyond feasting, eating, and drinking. Sometimes, indeed, the women dance, which, however, is only forming a ring, and walking round with the sun's course. Their songs are inharmonious, and almost all extempore on any object that strikes the imagination.

They dress leather for use in the following manner: For *fymirs*, they take a fresh skinned cow's or horse's hide, and steep it in water a few days, when the hair easily rubs off. It is then hung up till nearly dry, when they lay it in blood until soaked through, and then hang it in a smoky place for a considerable time: of this they make their buckets and soles of boots, &c. as the latter are completely water-proof, and the buckets, or *fymirs*, even retain oil. The legs of boots they make of colt's or calf's skins, scraped and rubbed till they be soft, then sewn, steeped in blood, and dried in smoke; afterwards blackened with wood-coals and fat several times, and smoked again; they then are water-proof. Elk and deer skins are dressed with and without the hair on, by being covered with a paste made of clay, and the undigested food from the maw; or with cow-dung hung up till nearly dry, then rubbed and scraped till soft. They are then either kept of their natural colour, or dyed of a red colour with the bark of alder and ashes boiled together, or else of a yellow colour with the roots of sorrel. The thread with which they sew their clothes is made of the sinews from the legs of the horse, deer, or elk.

Notwithstanding the strictest enquiries, I could not obtain any intelligence of remarkable places, or springs, of any kind, except the mountain where Commodore Bering obtained coals in his expedition of 1725, and forged his anchors near the famous mount

Thebedal, from whence they were transported by water to Yudomsky Krest, carried by land to Urak Plotbisha, and down the Oorak, or Urak river, to the sea and port of Ochotsk.

The mountain is situated on the Yakutsk plains 60 versts north of the town, on the confines of the Lena; it is called by the Russians Surgutskoi Kamen. I paid a visit to it in the beginning of March 1789; and found it the extremity of the ridge that bounds the plains toward the river; it is perpendicular; about 50 fathom high; formed chiefly of iron-stone, free-stone, and strata of coals, lying horizontally, from one to about three and a half feet thick, and of inconsiderable length; they then break off, and the same strata seems continued sometimes five or six feet higher or lower. They resemble petrified trees, the end towards the north being thicker than towards the south; some have short branches shooting from them of about five or six feet in length. About half way up the mountain, there seems in one place to be a warm spring; for I observed a vapour or faint smoke ascend from it, and the ground near it was wet.

On my way thither, I passed the night in one of the huts of a Yakut about 10 versts from the mountain, and observed there a small furnace with a pair of hand-bellows fixed, which were double, and gave a constant blast when worked with both hands. I saw some specimens of iron ore obtained in the neighbourhood, exactly resembling that of the Vilui in curious forms and shapes. This iron my host worked into knives, palmas, hatchets, &c. without fusion, bringing it into a very soft state by heat, and beating it out. He used charcoal for this purpose, nor did he know, till I showed him, that the coals, which he called black stones, would burn; and he was inclined to think me a sorcerer for making them

them inflammable. This mountain, however, afforded him grindstones.

Returning homeward, I arrived late at a hut about 18 versts from town, and resolved on passing the night in it. The landlord, an old Sochalar, entertained me with an account of his own pedigree; tracing himself, in a direct line, from Aley; and assured me that this was the neighbourhood to which he retreated from Omogai; of which retreat he gave me the following account:

Aley received numberless presents from Omogai and his dependents during his eldership; but was obliged to leave all these behind him, and was driven from Omogai with only two old mares, on which he and his wife rode; all his possessions at the time were, the clothes on their backs, a bow and arrows, a hatchet, palma, and two knives, with fire materials. Aley thought this a convenient spot; and, halting the second day, built a temporary hut, collected carefully the dung of his mares, and, when the wind blew towards Omogai's habitations, made fires of the dung, the smell of which allured the strayed cattle to his dwelling: he then carefully fed and watered them, and drove them back.

Aley now built himself a very large hut and storehouses. Before his hut he stuck up posts, with carved tops, for travellers to tie their horses to, and made a number of hurdle coops and pens close to his dwelling. The cattle constantly returning, with fresh numbers of milch cows and mares, Aley collected immense quantities of butter, milk, and koumis; and, having been very successful in the chase, he had a great supply of the meat of the elk and deer, with game of all kinds. He now purposely wandered to
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the places that he knew to be frequented by Omogai's tribe, fell in with some of his hunters, and brought them to his dwelling, having previously cautioned his wife to keep the strayed cattle far from his habitation. Omogai's people were astonished at the elegance of the habitation, and the profusion of fish and flesh of different animals ; but, above all, at the quantities of koumis and butter with which he treated them, knowing that he had no cattle.

Aley told them, that he had been admonished by his spirits, or demons, to form the different pens which they saw before and round his hut, and to affix the posts for the horses of his visitors ; assuring him, that his guests should be numerous, and his possessions great. He punctually obeyed the injunction of his demons ; and, to his astonishment, observed a white-mouthed stallion lead to his pens a number of mares and cows : these his wife milked ; which being effected, they vanished from his sight, but returned every night and morning. He kept his guests all night ; and in the morning sent them away, with provisions for the road, and presents of rich furs for Omogai, his wife, and daughter.

Aley had now several children, and was very desirous of obtaining, by fair means if possible, the property that he ought to have received from Omogai. Not doubting that the reports of the hunters, and the presents sent, would effect a reconciliation between them, and astonish his whole tribe, Aley resolved on paying his old master a visit, with additional presents, and inviting him, with the heads of his tribe and families, to pass a day or two at his habitation. He was well received, and Omogai promised to attend, with his wife, daughter, and friends, at an appointed

pointed time. Aley, on his return, built a very large temporary hut to receive his guests. They came and brought with them a considerable present of cattle. Aley treated them with great splendor for three days, received the present as such, and claimed with humility the cattle and labourers that had been unjustly kept from him, and which were his due, because he had served for them. Omogai acknowledged the demand to be just; but by the opposition of his wife and daughter was prevented from granting it. They departed with their friends; but Aley, through the influence of his demons, caused a violent storm and extreme darkness, in which they strayed several days; at length Omogai, his wife, and daughter, reached home; but the greater part of his friends returned to Aley, and acknowledged him their chief; being much disgusted at the refusal that he had received, and perhaps dreading the influence of his supernatural powers.

Omogai died shortly after, and the greatest part of his tribe went over with their cattle to Aley; but Batulin, one of his stewards, married the daughter, and secured the rest. She never bore him children, however; but Batulin took other wives, and had several.

Aley had twelve sons and several daughters. Changhalas he initiated in his magic art, and he was the founder of the Changalaski tribe.

This account is general among the Changalaski, who adore the stallion; but the history, as I have before related it, is credited by the greater number.

To

To give my readers an idea of the population of these northern parts of Siberia *, I here note the inhabitants from the latitude of 64 to the extremity of the north coast, and from the river Kovima, westward to the Anabara.

The district of Zashiverfk comprehends the rivers Kovima, Alafey, Indigerka, and Yana, and those that flow into them; the tributary nations are,

Yakuti	-	-	2810
Lamut and Tungoose	-	-	742
Yukagiri	-	-	322
Tshuvantfi and Chatinsy	-	-	37

Tribute received 1788 amounts to rubles 4560 for 3911 males.

The circuit is about 6000 versts in circumference. The district of Giganfk, a town north of Yakutfk on the Lena, contains one church, two government houses, seven private ones, and 15 huts. It has a mayor (Gorodnitshik) and his chancery, a court of the district (Zemikoi Sud), and a magistracy, although the merchants are mere trading pedlars, and only two, I think, in number. Its circuit also is about 6000 versts from the Yana to the Anabara, which divides the governments of Tobolsk and Irkutsk. The tributary nations are,

Yakuti	-	-	1449
Tungoose	-	-	489
			1938

Tribute received in 1788—56 fables, 262 foxes, and rubles 1169 in money.

The Russians inhabiting both districts, including exiles, &c. do not exceed 750 males.

* All Asiatic Russia, east of the Uralian or Virchoturian chain, is now called Siberia.

CHAP. XI.

Leave Yakutsk.—Arrive at the Village Amginskoi.—Ust Mayo Pristan.—Arrive at Ochotsk.—Two new Vessels launched, and named The Glory of Russia, and The Good Intent.—The latter Ship wrecked: a Circumstance which had been predicted by the superstitious Inhabitants from an ominous flight of Crows.—A Courier from Petersburg arrives.—An Island discovered, and named Jonas's Island.—Arrive at the Harbour of St. Peter and St. Paul in Kamtsbatka, where we winter, making only occasional Excursions.

THE ice of the river Lena broke up the 17th May, and on the 22d we crossed to the Yarmank, where horses were provided for us, and we were attended by the Ispravink of Yakutsk. The river had overflowed the low country; some ice was still floating down the stream, and a great number of trees.

We immediately proceeded on our journey to the Aldan, at the discharge of the river Mayo. I have already described the plains between Yakutsk and this river; but on our present route we stopped at a village called Amginskoi Sloboda, inhabited by 168 Siberian colonists, sent hither to grow corn, which, however, does not answer, except for their own support, and not always that; for in some years nothing is produced. The inhabitants get their bread chiefly by trading with the neighbouring tribes in trinkets and brandy. They informed us, that none of the wandering Tungoose were yet arrived at the Ust Mayo; and,

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upon being consulted about the road to the Aldama and Ulkan rivers (at the discharge of which Captain Billings had promised to meet Captain Saretsheff), they gave so bad an account of it, that Captain Billings resolved to give up the thoughts of taking this road. He therefore dispatched a Cossack with an order from the Ispravnik to the Yakuti inhabiting the plains, that they should send immediately to the Aldan Stanok 16 horses for our conveyance by the old road to Ochotsk.

On Thursday the 31st of May, we arrived at the Ust Mayo Pristan, opposite the discharge of the Mayo, and immediately sent a man to the prince of the Tungoose, who resides about ten versts up the Aldan. This is the chief or head of all the Tungoose, who has a number of Yakuti under his direction. He has several wives of the Yakut and Tungoose, is by both those nations much respected, and acts as an agent to the Mongal Tartars on the Chinese frontiers, to the Yakuti, and the Tungoose. He came to us early in the morning of the 1st June, and told us, that the road which Captain Billings purposed travelling would be attended with some difficulty; that the deputies, or elders, of the wandering tribes were not yet arrived; that he would send a letter to Captain Saretsheff, and answer for its being delivered in 20 days, if he came near the coast about the estuaries of the Ulkan or Aldama rivers. In consequence of this, Captain Billings dispatched a letter to Mr. Saretsheff, desiring that he would return immediately to Ochotsk, and meet him there, as he hoped the ships would be ready for sea.

Boats were procured, and on the 4th June we fell down the stream of the Aldan, 150 versts to the Old Aldan stage, where we arrived

arrived on the 7th, at six o'clock in the evening, having for the last eight days had rainy and stormy weather.

The ordered horses were not yet arrived, nor was the Coffac who was sent for them; but we obtained twelve stage horses, with which we proceeded to Ochotsk on the 8th at noon, and arrived at the port on the 21st. Here we found the largest ship ready for launching, and the other nearly so. All the articles arrived safe, and all hands in good health and spirits; and toward the end of the month Mr. Saretshoff returned, having received the letter sent him from Ust Mayo Pristan.

Dr. Merck, our naturalist, was making a collection of the curiosities about the Mariakan mountains; but orders were dispatched for his return, as we expected to get to sea about the middle of August.

Toward the middle of July, our largest ship was launched; she went off the stocks extremely well; but, owing to the shoals in the river, it was almost three weeks before we could get her into deep water near the discharge of the bay, where she took in a part of her cargo. She was then taken out to sea about five miles, over the sand banks, and brought to anchor in six fathom water, with a bottom of sand and stones. We employed the transport galliots to carry guns, stores, &c. on board while in this situation; for she could not have passed the shallows even in proper ballast. She was named, by order of the Empress, the Slava Rossie, Glory of Russia.

On the 8th August, the second ship was launched, and called the Dobroia Namerenia, Good Intent. She was rigged, and ready

to go out early in September ; it was, however, necessary to wait for the spring tides to carry her over the grounds ; a galliot was loaden with her stores and ammunition, and got ready to accompany her out.

In the evening of the 7th of September, Captain Billings resolved on carrying the ship out the next morning ; Mr. Loftsoff, the pilot of the port, was ordered to take the charge, and get all the boats belonging to the port manned, and in readiness, that, in case the wind should fail, they might tow her out ; the boats of both ships were also ordered to attend. Captain Hall, who had the command of this ship, slept on board. At six o'clock in the morning of the 8th, I went on board to get a book out of the cabin. Before I got up the side of the ship, the Captain asked me whether I brought any orders to go out. I told him that I did not, and asked him if he thought it was possible. The wind was favourable, but very scant ; a heavy swell from the south-west right on shore, and the sea breaking amazingly over the banks, and on the beach : this I thought indicated a south-west breeze, beside which, it was very foggy. Captain Hall said, he thought it impossible, and certainly should not go out, unless the commander came on board himself, and insisted upon it. Mr. Koch, the acting commandant, who was on board the transport vessel close astern, asked Captain Hall, if he should follow him ? The answer was, " No, unless you mean to be cast ashore ; but I shall not go myself if I can help it." At half past seven Captain Billings came on board, and, after some conversation with Mr. Hall, said, " The pilot shall determine." The pilot arrived ; Mr. Hall represented his fears ; and added, that Mr. Loftsoff was, perhaps, not aware of the difference between the ship that he was then taking charge of, and a galliot of sixty tons. Captain Billings

lings said, he did not think the danger so great as Captain Hall represented; and urged the necessity of getting out this spring-tide if possible, owing to the late season, and his desire of passing the winter on the north-west coast of America. The pilot affirmed that there was not any danger. Captain Hall then told the crew to obey every order of Mr. Loftsoff, and refused to have any charge in carrying the ship out, but proffered every assistance in his power. At eight o'clock, high water, just as the tide was turning, tow-lines being given to six barges and boats, she cast off; it was a perfect calm; the swell very heavy; and the sea breaking over the banks with great violence. The boats towed her through the passage, keeping her head against the swell; but when the first boat (the largest, which had, I believe, sixteen oars), got into the breakers, she shipped a heavy sea, and cast off her tow-line*. The ship pitched exceedingly, and the skiff along side had her head carried under water, being entangled with the fore-chains, and two men were washed out of her. Every boat now cast off her tow-line to save the men, one of whom only they picked up. The ship, driven at the mercy of the swell, struck on the beach, and stuck fast. At a quarter past nine, a light breeze sprung up from the south-west. Her masts were cut away, but to no purpose; for the tide was on the ebb, and she was soon left dry. There was no time to be lost; the wreck was cleared away, and as much of the rigging and stores carried on shore as possible. The resolution was immediately taken to sail in one ship to Kamtschatka, and there build a small vessel, during the winter, of the materials of the lost ship. Not having time to break her up, it was also resolved to burn her, as the quickest method of getting at her iron-work. This was put in execution on the 9th September.

* This boat rowed on board the other ship over the bar at anchor, and returned with the flood tide: she could not turn in the breakers.

The wind was this morning moderate from the south-west; but the surf beat with such violence against the beach, that the spray nearly reached the church. It freshened in the afternoon, and died away about midnight.

The loss of this ship had been foretold by the *superstitious* inhabitants of the town, from the following remarkable circumstance: In the spring of the year, a flight of crows were fighting in the air, and making a dreadful noise. One of them was killed by the rest, and fell upon the deck of this ship. The whole swarm immediately descended, and entirely devoured the vanquished bird, leaving no other vestiges than the feathers behind. This very remarkable occurrence, which was related by all our officers, workmen, and inhabitants, happened while I was at Yakutsk.

I have judged it necessary to be particular in my account of this very unfortunate circumstance; and shall only add, that it appeared to me very fortunate that the ship did not get into the breakers in the narrow channel; in which case she must inevitably have been driven on the bank, and in all probability not a soul on board would have been saved. Captain Saretshoff was on board the *Slava Rossie*, at anchor five miles out at sea, without a boat.

The morning of the 10th would have been very favourable, with a leading wind from the north till 11 o'clock, when it veered to the south-west. I was sent on board the *Slava Rossie* with stores, an anchor and cable, in the long boat. Captain Saretshoff lamented his not having been on shore, to have opposed the

the carrying out the ship under such inauspicious prospects. He also expressed great regret at the ship's having been burnt; but was happy to hear that no lives had been lost, except that of one man, who had neither wife, nor family, nor friends. The body of this man had been seen floating at no great distance from the ship, which filled every one on board with melancholy sentiments. I returned in the evening with the tide. The next day Captain-Lieutenant Bering went on board, and in the evening Captain-Lieutenant Saretshoff returned.

September 14th. A courier arrived from St. Petersburg, bringing intelligence of the war with Sweden, recommending the greatest economy in our proceedings, (as money was extremely scarce in Russia) and ordering the expedition to return to St. Petersburg if we had not sailed from the port of Ochotsk, or if things were not in complete readiness for sea; for they experienced a great want of naval officers and men. Towards evening it blew fresh from the south-west, and precluded all communication between the parties on board and on shore.

On the 15th, it blew a hard gale from the south-west. We several times observed from shore, that the ship drove, and towards night that her top-masts were struck. The gale continuing, we made fires along the beach, and observed a lanthorn on one of the mast-heads.

The 16th, the gale continued with unabated violence, and we saw with our glasses that the ship had three anchors a-head; notwithstanding which, she frequently drove, and we expected her every moment on shore. She had very few hands on board and

no

no boat. The night was terrific, with very heavy rain. We again made fires all along the beach.

On the 17th our anxiety increased with the gale. We did not observe her drive; but frequently the thick weather hid her from our sight: towards evening, however, to our great joy, the gale abated. Very early in the morning of the 18th, we sent on board all necessary hands, stores, materials, &c. employing all the boats. We observed that the ship had driven above a mile to the north-east into three and a half fathom water; and had she gone about forty fathom further, she would have got on a shoal.

On the morning of the 19th we had four inches of snow on the ground. Captain Billings and all absolutely necessary hands embarked*; and about noon we weighed anchor, with a moderate south-west breeze, shaping our course to the east of the south. On the 22d we saw an island bearing south-west distant about forty miles, with detached rocks round about it. We hove the lead, and found bottom with twelve fathom line only. This small island is not noted in any of the charts, and we gave it the name of Jonas's Island. On the 28th we passed the remarkable mountain called Alaid, rising out of the sea, and terminating in a cone. Some on board declared, that in clear weather they had seen it at 350 versts distance: its situation, however, is about twenty miles from the south point of Kamtschatka. The same day we passed the Kurillan straits between the second and third island, and arrived at St. Peter and St. Paul the 1st day of October.

* We were compelled to leave several behind us, with stores, &c. who were to follow us to Kamtschatka, with the transport vessel, in the spring.

Nothing

Nothing interesting, or worthy of notice, happened in this trip. We had very boisterous weather, and a disagreeable short sea until we came into the Northern Pacific Ocean, where we experienced an amazing difference in the climate, which was mild and pleasant. In Kamtschatka the weather was very agreeable. The kitchen gardens belonging to the Cossacs were full of cabbages and other vegetables, and the views around were more beautiful than any thing of the kind that I ever remember to have seen. The looks of all the inhabitants seemed to evince health, plenty, and content: and, in short, every thing was completely the contrary of what we had seen and felt on the river Kovima.

We unloaded and unrigged our ship, built barracks for our men, and ourselves occupied the houses of the inhabitants, three or four officers being stowed in a small room; but before the winter set in we made additions to the buildings, lived very comfortably without distressing the inhabitants, and in perfect harmony with them. Fish and wild fowl were in great abundance. Potatoes, carrots, turnips, and cabbages, plenty; as well as several pleasant roots and greens which grew spontaneous. Great variety of berries were found, and in sufficient quantities to yield supplies of good drink. Besides which, we brewed spruce-beer, and had a very plentiful stock of tolerably good French brandy.

We were visited by Veroshagin, the priest of Paratounka, and his family; and I was very happy to meet with a number of the acquaintances of my countrymen in Captain Cook's Expedition. Nothing in nature could be more pleasant than the glow of friendship which animated their countenances with the liveliest expression of sincere regard, when they mentioned the names of King, Bligh, Philips, Webber, and others; names that will be

handed down to posterity by tradition in a Kamtschatka song to their memory, with a chorus to the tune of *God save the King*; which is frequently sung in perfect harmony, particularly by the family of Veroshagin at Paratouka, by the different branches of which it was made. They deeply lamented the fate of Captain Clerke, whose tomb is now graced with an engraving on a sheet of copper, containing a copy of the superscription painted on the board, and suspended on the tree under which he lies buried; with this addition only, "Erected by Perouse 1787, commander of the Expedition from France." Near this place is a half-decayed wooden cross, denoting the place of interment of the naturalist De Lisle de la Croyere, who died in Commodore Bering's Expedition.—[See the annexed ENGRAVING.]

We made frequent excursions and visits, and were well entertained with songs, dances, &c. of which I purpose giving an account hereafter, with a description of the country, and the customs and manners of the people.

Fine weather continued till the 16th November, when we had snow, and the appearance of winter setting in; the thermometer being 2, 3, and 4 degrees below the freezing point of Reaumur.

It was now necessary to discover the most eligible place for building a vessel to accompany the *Slava Ruffie*. The only wood produced about the bay of Avatsha is birch; but in the river Kamtschatka are considerable woods of larch, fir, and common pine. Captain Billings resolved upon visiting the Kamtschatka, in company with Captain Hall, and building in the Lower Town a cutter, as a consort to the ship

They



Engraved by J. Powell

Drawn by W. Alexander

View of Capt. Clarke's Tomb at St. Peter & St. Paul.

Published March 2^d 1802, by Gidell & Davies, Strand.

They quitted the harbour of St. Peter and St. Paul, with Mr. Bakoff and Surgeon Robeck, on the 24th November; leaving Captain Saretshoff to superintend. Doctor Merck, Mr. Vaconin (the draftsman), a bird stuffer, and necessary assistance, set out the 4th December on an excursion, to describe the hot springs, and collect natural curiosities. About Christmas, Mr. Shmaleff, the commander of this district, arrived, and increased the harmony and good humour of our society.

Parties were sent to Bolshoietsk and Virchnoi, or the Upper Town, to prevent their quarters being heavy on the inhabitants; and materials were forwarded by small quantities to the Lower Town for building the vessel; for which purpose trees were felled.

We passed a pleasant and agreeable winter in different excursions to Bolshoietsk, &c. enjoying all the good things in Kamtschatka, and perfect health. The frost was generally 5° to 8° . The severest cold that we had did not exceed 18° , and lasted only a few hours. Snow was very deep.

CHAP. XII.

Receive information from Petersburgh of an Enemy's Ship (Swedish) having been sent into these Seas to annoy the Russian Fur-Trade.—Depart from Avatska Bay.—Captain Billings causes his Instructions to be read to the Officers, and declares his intention of steering to the North-west Coast of America.—Island of Amtshitka.—Amli.—Oonalashka; Dress, Manners, &c. of the Natives.—Tyranny exercised over them by the Russian Hunters.

EARLY in the month of March 1790, we were all collected together in the harbour of St. Peter and St. Paul, on the receipt of dispatches from St. Petersburg, confirming the Swedish war, and informing us of a ship called the Mercury, mounting 16 guns, under the command of a Mr. Coxe, having been sent into these seas by the Court of Sweden to annoy the Russian fur-trade; which it was to be our business to prevent.

Towards the end of April the harbour was clear of ice; but the mountains were still covered with snow, except such parts as were opposed to the influence of the sun, where vegetation began.

On the first of May all hands embarked, and the ship was hauled into the bay of Avatsha. The weather was clear and calm; we obtained some wild garlic (Ttheromtsha), and observed the hawthorn and birch beginning to bud.

We

We had 16 brass three-pounders mounted, and on the morning of the 2d took our powder on board. We observed high water at the head of the inner harbour at full and change of the moon, at four hours and forty-three minutes: the greatest rise six feet.

Calms and contrary winds detained us till the 9th May, at four A. M.; when, a moderate breeze springing up from the north north-west, we stowed away our boats, weighed anchor, and stood out of the bay, steering south south-east, and keeping a middle course.

At eight A. M. the light-house bore north-west 15° , distant two leagues; our latitude $52^{\circ} 49'$ north, longitude $158^{\circ} 47'$ east from Greenwich. From hence we took our departure; and at noon our latitude was $52^{\circ} 46' 4''$, longitude $158^{\circ} 54'$.

At half-past seven in the evening, Avatsha Volcano bore north-west 35° , the light-house north-west 78° ; and we shortly after lost sight of land. The weather was raw and cold; our thermometer indicated at midnight one degree above the freezing point; and we had a moderate southerly breeze, the sea running very high from the south-west.

On the 10th we had a moderate breeze from the south-west, with a rough sea and hazy weather; our course south-east, which continued on the 11th. At noon our observed latitude was $51^{\circ} 18' 6''$, longitude $161^{\circ} 58'$. During the day we saw several flights of ducks, numberless gulls, auks, and sea-parrots; a few grampuses and seals; and a plank very like the sheathing of a ship. The afternoon was very hazy and cold. On the 12th, we had

light airs from the south, and hazy weather. We saw during the day whales, seals, gulls, auks, &c. Our latitude, by account, $51^{\circ} 5'$, longitude $163^{\circ} 50'$.

In the morning of the 13th, Captain Billings had his instructions read to the officers; and told them, that his intention was to steer for the islands south of Alaska, and to the north-west coast of America; considering the surveying of the chain of Aleutan islands, so inaccurately laid down on the charts, as too dangerous to be attempted with a single vessel during the foggy season.

We had a fresh breeze from the south, and our course was east north-east. We reckoned our latitude at noon $51^{\circ} 5'$, longitude $166^{\circ} 30'$. Towards evening, we had variable light airs, and foggy weather. Light winds from the east, and calms, continued during the 14th and 15th. The 16th, variable winds, and thick misty weather. At noon saw ducks and small birds flying to the eastward, and rock weeds floating; latitude, by account, $50^{\circ} 40'$, longitude $169^{\circ} 5'$. In the afternoon a gentle breeze sprung up from the south and south-west; our course east by north: we saw several flights of land birds.

The 17th, variable winds and rain. At noon, observed the latitude $51^{\circ} 11' 7''$, longitude, by account, $170^{\circ} 25'$. At four P. M. a fresh breeze sprung up from the north north-west with flying clouds at $4^{\circ} 16' 15''$ apparent time; longitude, by time-keeper, $171^{\circ} 18'$ east from Greenwich, latitude $51^{\circ} 12' 4''$. The 18th, observed the latitude at noon $50^{\circ} 49' 23''$; saw great quantities of rock-weed floating, and numbers of porpoises and birds. At four $50^{\circ} 55'$ P. M. apparent
5 time,

time, longitude $173^{\circ} 14'$, latitude $50^{\circ} 49' 20''$; variation of compass $13^{\circ} 10'$ east. The 19th, we had a fresh breeze north by west; our course north-east by east; cloudy weather, with a hazy horizon. At noon, observed the latitude $50^{\circ} 44'$: the afternoon squally, with rain. According to Captain Billings's custom, we went under an easy sail every night, or laid-to. The 20th, at noon, we were in latitude $50^{\circ} 27' 52''$, longitude, by account, $175^{\circ} 40'$. This day and the 21st we had variable light winds between the north and the east, with raw misty weather, 3° above the freezing point, and a moderate swell from the north-east. The 22d blew fresh from the east north-east; kept a northern course all day; misty and hazy weather; night squally, at times snow: and on the 23d the wind veered to north north-west, blowing fresh; the sea running very high; steered north-east. At noon, saw great quantities of rock-weed floating, and land-birds flying to the north. Got a sight of the sun, which gave the latitude $51^{\circ} 6' 43''$, at $3^{\circ} 41' 15''$ apparent time, longitude, by time-keeper, $177^{\circ} 57' 45''$, latitude $51^{\circ} 18'$. At eight P. M. saw land north and north-east, on account of which, and approaching night, close-reefed top-sails, and handed all small sails; the wind veered to west by south, we kept our ship's head south by west till day-light on the 24th, when we again stood to the north-east. At $3^{\circ} 30'$ A. M. saw high land; and, when we got well in with it, ranged along the south-side. It was the island Amtshitka, the eastern extremity of which bore at noon north 20° east, distant about 12 miles. It commences to the west with a low point of land, gradually rising into moderate mountains, trending south 49° , east 25 miles; where it forms a head-land, from whence its direction is north 64° , east 14 miles: to the east and west are detached rocky isles. The mountains were covered with snow, and no wood to be seen: our latitude, by account,

was $51^{\circ} 18'$, longitude $179^{\circ} 25'$. Squally weather, with a hard gale from the south-west; the sea running very high, and the surf breaking violently on a reef of hidden rocks near the land; our course east. The 25th, wind more moderate; thick hazy weather; fresh gales, varying from south-west to south south-east; kept our course east and east north-east; latitude, by account, at noon $50^{\circ} 46'$; towards night slackened sail. The 26th, fresh easterly wind, which veered to east, north-east, north, and north-west by west, blowing hard with rain; the sea running very high. At eight P. M. the gale, with squalls, brought us under our courses, and we saw land in the haze; the western cape north, 14° west, distance about four leagues: the east extremity bore north. We supposed this to be the island of Adak; but, fearful of entangling the ship among islands so badly placed in our charts, it was thought proper to lay-to under mizen, main, and fore-sail, with the ship's head to the westward, to wait day-light. The 27th, at four A. M., wore ship, and stood to the north-east by east under the above sails, wind continuing north-west by west. At noon, our latitude observed was $51^{\circ} 12' 57''$, corrected longitude $184^{\circ} 55'$; at three P. M. saw land, two mountains covered with snow, north 44° west, distant about 36 miles. At $3^{\circ} 59' 50''$ P. M. apparent time, longitude, by time-keeper, $184^{\circ} 35' 30''$, latitude $51^{\circ} 18' 52''$; at the same time saw land, a high mountain north-west 38° , distant about 30 miles; soon hid by the haze; and, on account of approaching night, slackened sail. The 28th, had a fresh gale at west south-west; our course north-east, the sea running very high, and cloudy weather. At ten A. M. saw land, which we supposed to be the island of Amli; and, to get a better sight of it, shaped our course north. At noon, the west cape of a bight bore north-west 21° ; east cape north-west 15° , distant eight miles; latitude observed $51^{\circ} 55' 23''$, longitude, by account,

187° 36'. The island of Amli, from the west point, trends 44 miles south, 88° east. At 4° 10' 25" P. M. apparent time, longitude, by time-keeper, 187° 12', latitude 51° 55' 9", the variation of two compasses gave the mean 17° 7' east. The 29th, at noon, the latitude observed was 52° 23' 53"; corrected longitude 190° 14'; fresh breezes from the south-west; our course north-east. Till noon of the 30th, variable light airs; latitude observed 52° 34' 5", corrected longitude 191° 2'. In the afternoon, little wind from the north-west, steering north-east at 5° 24' 25" P. M. apparent time; longitude by time-keeper 191° 2', latitude 52° 37' 7". We saw land to the north all night, and stood to the west south-west. At day-light of the 31st resumed our course north-east. At 8° 23' 20" P. M. apparent time, our longitude was 191° 40', latitude 52° 40' 5". Towards noon rainy weather.

In the morning of the 1st June, at 4° 30' we rose the island of Oonalashka in the north-east. At 8° 5' 45" A. M. our longitude was 192° 41' 15", latitude 52° 51' 17", little wind at north north-west, which died away to a calm. At four P. M. had a gentle breeze from the north north-west again; and at 6° 26' 25" A. M. the time-keeper gave the longitude 193° 2' 15", latitude 52° 59'. On the 2d variable light airs and calms. At noon our latitude observed was 53° 3' 29", corrected longitude 193° 47'. We were now well in with the land of Oonalashka, which appeared every where high, formed of projecting promontories and inland high mountains. In the forenoon of the 3d June, numbers of the natives came alongside. We threw our main-top-sail to the mast, and took them on board. At noon we observed the latitude 53° 45' 4". At four P. M. a Russian hunter of Tshirepanoff's company came alongside in a baidar rowed by eight Alcutes. He had been along shore in search of drift wood for firing,

with a number of Alcutes, some of whom brought us a good supply of Halibut. They conducted us into a bay which the Russians call Bobrovai Guba, or the Bay of Otters, where we came to anchor at eight P. M. opposite the habitations of the natives. We sent an officer to sound, and hauled into the bay about 40 fathom from shore.

Captain Billings landed with his astronomical tent; Dr. Merck went out on an excursion for curiosities; and Captain Saretshoff, with assistants, was sent to survey; while I employed myself in getting the best information that I could obtain of the inhabitants, who with the people of Oomnak, call themselves Cowghalingen. This habitation they call Sidankin. It is on the small island Sithanak, seven miles from north-east to south-west, which is separated from Oonalashka by straits of only a few fathom wide, and appears to be the south-west extremity of the island. It consists of barren mountains of a moderate height, composed of hard stone of a glassy nature, and generally of a greenish hue: some, however, is black. Behind the huts is a lake of some extent (evidently supplied by the melting snow from the mountains), with a small outlet or run into the sea. Here we took a supply of fresh water, which was not very good.

About five families reside here. The natives of Alaksa and all the adjacent islands they call Kagataiakung'n, or eastern people: the islanders of Oone-agun (Tihettiere Sopolhnoi) they call Akohgun.

The people are of middle size; of very dark brown and healthy complexion; round face in general, small nose, black eyes and hair, the latter very strong and wiry. They have scanty beards,
I but



A Man and a Woman of Conalashka.

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but very thick hair on the upper lip. The under lip is, in general, perforated, and small ornaments of bone or beads inserted; as is also the septum of the nose. Women have the chin punctured in fine lines rayed from the centre of the lip, and covering the whole of the chin. The arms and cheeks of some are also punctured. They are very clean in their persons; and the men very active in their small baidars. The women are chubby, rather pretty, and very kind.

They formerly wore a dress of sea-otter skins, but not since the Russians have had any intercourse with them. At present they wear what they can get; the women, a park of kotik, or ursine seal, with the hair outward. This is made like a carter's frock, but without a slit on the breast, and with a round upright collar, about three inches high, made very stiff, and ornamented with small beads sewn on in a very pretty manner. Slips of leather are sewn to the seams of this dress, and hang down about 20 inches long, ornamented with the bill of the sea-parrot, and beads. A slip of leather three or four inches broad hangs down before from the top of the collar, covered fancifully with different coloured glass-beads, and tassels at the ends: a similar slip hangs down the back. Bracelets of black seal-skin are worn round their wrists about half an inch broad, and similar ones round their ankles, for they go barefooted; and this is all their dress. Their ornaments are rings on the fingers, ear-rings, beads and bones suspended from the septum of the nose, and bones in the perforated holes in the under lip. Their cheeks, chin, and arms, are punctured in a very neat manner. When they go a-walking on the rocky beach, they wear an aukward kind of boot, made of the throat of the sea-lion, soled with thick seal-skin, which they line with dry grass. The men wear a park of birds' skin, some-

times the feathers outward, and sometimes inward. The skin side is dyed red, and ornamented with slips of leather hanging down a considerable length; the seams covered with thin slips of skin, very elegantly embroidered with white deer's hair, goat's hair, and the sinews of sea animals, dyed of different colours. They also wear tight pantaloons of white leather, and boots as described to be worn by the women at times: the men wear them when they go on foot; but in their baidars or their huts they are without either pantaloons or boots. The men have their hair cut short; the women wear theirs short before, combed over the forehead, and tied in a club on the top of the back part of the head. In wet weather, or when out at sea, they wear a camley; which is a dress made in the shape of the other, but formed of the intestines of sea animals; the bladder of the halibut, or the skin off the tongue of a whale. It has a hood to cover the head, and ties close round the neck and wrists; so that no water can penetrate: it is nearly transparent, and looks pretty. The men wear a wooden bonnet, ornamented with the whiskers of the sea-lion, and with beads, which make very pretty nodding plumes; and this serves to fasten the hood of their camley to the head. The women's park is called tshoktakuk, the men's iash; the boots, ooleegich. Both men and women are very fond of amber for ornaments, as also of a thin shelly substance formed by worms in wood, about two inches long, thin, tapering, and hollow.

Their instruments and utensils are all made with amazing beauty, and the exactest symmetry; the needles with which they sew their clothes and embroider are made of the wing-bone of the gull, with a very nice cut round the thicker end, instead of an eye, to which they tie the thread so skilfully, that it follows the needle without any obstruction. Thread they make of the
sinews

finews of the seal, and of all sizes, from the fineness of a hair to the strength of a moderate cord, both twisted and plaited; the plaited cords of their darts, to which they tie the gut of the seal blown out to serve as a float, are very beautifully ornamented with red downy feathers, and goat's hair; as are also the different strings with which they fasten the wrists and other parts of their cloathing, &c.

Their darts are adapted with the greatest judgment to the different objects of the chase; for animals, a single barbed point; for birds, they are with three points of light bone, spread and barbed; for seals, &c. they use a false point, inserted in a socket at the end of the dart, which parts on the least effort of the animal to dive, remaining in its body. A string of considerable length is fastened to this barbed point, and twisted round the wooden part of the dart; this serves as a float to direct them to the seal, which, having the stick to drag after it, soon tires, and becomes an easy prey. It, however, requires skill to humour it, perhaps equal to our angling. The boards used in throwing these darts are equally judicious, and enable the natives to cast them with great exactness to a considerable distance.

The baidars, or boats, of Oonalashka, are infinitely superior to those of any other island. If perfect symmetry, smoothness, and proportion, constitute beauty, they are beautiful; to me they appeared so beyond any thing that I ever beheld. I have seen some of them as transparent as oiled paper, through which you could trace every formation of the inside, and the manner of the natives' sitting in it; whose light dress, painted and plumed bonnet, together with his perfect ease and activity, added infinitely to its elegance. Their first appearance struck me with amazement beyond expression.

expression. We were in the offings, eight miles from shore, when they came about us. There was little wind, but a great swell of the sea: some we took on board with their boats; others continued rowing about the ship. Nearer in with the land we had a strong rippling current in our favour, at the rate of three miles and a half, the sea breaking violently over the shoals, and on the rocks. The natives, observing our astonishment at their agility and skill, paddled in among the breakers, which reached to their breasts, and carried the baidars quite under water; sporting about more like amphibious animals than human beings. It immediately brought to my recollection, in a very forcible light, Shakespeare's expression —

“ He trod the water,

“ Whose enmity he flung aside, and breasted

“ The surge most swollen that met him.”

These baidars are built in the following manner: A keel eighteen feet long, four inches thick on the top, not three inches deep, and two inches, or somewhat less, at the bottom. Two upper frames, one on each side, about an inch and a half square, and sixteen feet long, join to a sharp flat board at the head, and are about sixteen inches shorter than the stern, joined by a thwart which keeps them about twelve inches asunder. Two similar frames near the bottom of the boat, six inches below the upper ones, about one inch square. Round sticks, thin, and about six inches distant from each other, are tied to these frames, and form the sides; for the top thwarts, very strong sticks, and nearly as thick as the upper frames, curved so as to raise the middle of the boat about two inches higher than the sides. There are thirteen of these thwarts or beams: seven feet from the stern is one of them; twenty inches nearer the head is another; a hoop about

two

two inches high is fastened between them, for the rower to sit in. This is made strong, and grooved to fasten an open skin to, which they tie round their body, and it prevents any water getting into the boat, although it were sunk. This frame is covered with the skin of the sea lion, drawn and sewn over it like a case. The whole is so extremely light, even when sodden with water, that it may be carried with ease in one hand. The head of the boat is double the lower part, sharp, and the upper part flat, resembling the open mouth of a fish, but contrived thus to keep the head from sinking too deep in the water; and they tie a stick from one to the other to prevent its entangling with the sea weeds. They row with ease, in a sea moderately smooth, about ten miles in the hour, and they keep the sea in a fresh gale of wind. The paddles that they use are double, seven or eight feet long, and made equally neat with the other articles.

The women plait very neat straw mats and baskets; the former serve for curtains, seats, beds, &c.; the latter to contain their work and other implements. Their trinkets and costly ornaments are kept in small wooden boxes with draw lids.

I observed in all the huts a basket containing two large pieces of quartz, a large piece of native sulphur, and some dry grass or moss. This serves them in kindling fires; for which purpose they rub the native sulphur on the stones over the dry grass, strewed lightly with a few feathers in the top where the sulphur falls; then they strike the two stones one against the other; the fine particles of sulphur immediately blaze like a flash of lightning, and, communicating with the straw, sets the whole in a flame.

Their

Their only music is the tambour, to the beat of which the women dance. Their holidays, which are kept in the spring and autumn, are spent in dancing and eating. In the spring holidays, they wear masks, neatly carved and fancifully ornamented. I believe that this constitutes some religious rite, which, however, I could not persuade them to explain: I attribute this to the extraordinary and superstitious zeal of our illiterate and more savage priest *, who, upon hearing that some of our gentlemen had seen a cave in their walks, where many carved masks were deposited, went and burnt them all. Not satisfied with this, he threatened the natives for worshiping idols, and I believe I may say *forced* many to be christened by him, without being able to assign to them any other reason than that they might now worship the Trinity, pray to St. Nicholas and a cross which was hung about their necks, and that they would obtain whatever they asked for; adding, that they must renounce the devil and all his works, to secure them eternal happiness. It appeared to me that they regarded this as an insult; be that as it may, however, they were not pleased, but had not power to resent.

They have no marriage ceremony among them, but purchase of father and mother as many girls as they can keep; and, if they repent of their bargain, the girl is returned, and a part of the purchase given back. They formerly used to keep objects of unnatural affection, and dress these boys like women.

* I have called the priest more than savage, and shall relate a circumstance that happened in proof. While he was travelling from Yakutsk to Ochotsk, he lost some provision on the road. On a mere supposition that his two Tartar guides had taken it, he tied each of them up by an arm to a tree, and had them flogged to such a degree, that one of them died, and the other never recovered the use of his arm: it was afterwards known, that some runaway exiles hid in the woods were the thieves. The priest said, *there was no harm done; they were not Christians.*

At births also, no ceremony is used, except washing the infant.

They pay respect, however, to the memory of the dead; for they embalm the bodies of the men with dried moss and grass; bury them in their best attire, in a sitting posture, in a strong box, with their darts and instruments; and decorate the tomb with various coloured mats, embroidery, and paintings. With women, indeed, they use less ceremony. A mother will keep a dead child thus embalmed in their hut for some months, constantly wiping it dry; and they bury it when it begins to smell, or when they get reconciled to parting with it.

They dry salmon, cod, and halibut, for a winter's supply, and collect edible roots: this, however, is not for themselves, but for such Russian hunters as may chance to visit them. At this time there are twelve Russians and one Kamtschadal, of Tshirepanoff's company of hunters on the island. They have lived here eight years, but are going this year back to Ochotsk. These people lord it over the inhabitants with more despotism than generally falls to the lot of princes; keeping the islanders in a state of abject slavery; sending parties of them out on the chase, and to their vessel, which now lies in the Straits of Alaksa; selecting such women as they like best, and as many as they choose. They seem to me to have no desire to leave this place, where they enjoy that indolence so pleasing to their minds; for, by changing of places, they change situations, and become themselves as much the slaves of power, as the poor natives are to them.

I observed, in crossing the mountains, piles of stones. These are not burying-places, as has been supposed, but serve as beacons

to guide them in foggy and snowy weather from one dwelling to the other; and every person passing adds one to each heap. The only observations that we made on shore proved our time-keeper still going as when we left Kamtschatka; our latitude $53^{\circ} 56'$, longitude $194^{\circ} 20'$; variation of the compass $19^{\circ} 35'$ east.

CHAP. XIII.

Depart from Oonalashka.—See the Island of Sannach.—The Shumagins.—Aleutes oppressed by the Russian Hunters.—Islands of Evdokeeff.—Come to anchor in the Harbour of Kadiak.—Particulars respecting that Island and its Inhabitants.

ON the 13th June, at eight A. M., having taken in a supply of fresh water, and ballast, we weighed anchor, with a gentle breeze north-west; but, finding that we could not weather the rocks off the eastern cape, again came to anchor near our old station, where we remained till the evening of the 17th, when, the wind shifting more to the north, we weighed, and got out. Our soundings in the bay were 17, 16, 15 fathoms; suddenly deepening so, that we got no bottom close in with land with 100 fathoms line. At midnight hoisted in our boats, and proceeded with light airs and foggy weather. The 18th, at 10 A. M., the volcano on the island of Akutan bore north-west 81° . Three conical mountains on the island of Oonimak bore, the first, north-west 18° ; the second, north-west 2° ; the third, north-east 12° . At noon, our distance made was 41 miles south-east 86° ; latitude observed $53^{\circ} 52' 6''$, longitude $194^{\circ} 43'$. At one P. M. the volcano in Oonalashka south-west 77° ; west cape of Akutan south-west 86° ; the first mountain in Oonimak, called by the natives Koogidan Kaigutshin, north-west 12° ; the volcano called Agaiedan, north-east 8° ; the third mountain, Khaiginak, north-east 15° . At

4° 30' 55"	apparent time, the longitude proved, by time-			
keeper,	-	-	-	195° 35' 15"
	Latitude	-	-	53° 58' 6"
	Variation of the compass	-	-	0° 19' 40"

The evening was very foggy, with rain, light airs from the westward, and calms. At midnight we got soundings with 60 fathom line; a muddy and black sandy bottom.

The morning of the 19th was very foggy, with variable light airs from south south-west to south south-east. We saw a number of the kotic, or urfine seals, sporting about the vessel; also one sea-otter. At eight o'clock we had a gentle breeze from the south-east, hazy, and rain; soundings 30 fathoms. We were well in with the island of Oonimak, upon which the fog rested; it trends from the western extremity south-east 63°, 18 miles; to the northern cape 19 miles in a direction north-east 62°. The land is high, broken, and rugged, and there are three very conspicuous mountains upon it. The summit of the first is very irregular; the second is a perfect cone towering to an immense height, and discharging a considerable body of smoke from its summit; the third (Khaginak) has its summit apparently rent and broken, covered with snow, and towering above the fog which covered the middle of the land. On the lower parts of them, and in the vallies, no shrub nor bush was to be seen: our latitude at noon was, by reckoning, 54° 25', longitude 196° 6'. In the afternoon we had a fresh breeze from the south-east by east; our course north-east by east; keeping the lead going; soundings pretty regular for 30 to 45 fathom. At eight P. M. we tacked and stood south by west and south away from the land.

The

The 20th, at three A. M. we again tacked for the islands, and shaped our course to the eastward; our soundings varying from 46 to 33 fathom, small stones, shells, and sand. It blew fresh, and was hazy with rain. At half past four in the morning, the weather cleared up a little, and discovered the island of Sannach, with rocks and breakers over a reef, about a mile right ahead of the ship, so that we had but just time to get clear of them. This island is inhabited by a few Aleutan families; and in the middle of it are three considerable mountains, joining together. The east and western extremities are low land, and appear verdant, but without wood. It is surrounded by a reef of rocks, some above water, and the surf breaking violently over others. At noon our latitude was $54^{\circ} 22'$, longitude $197^{\circ} 37'$, and our distance from land 12 miles. The east cape bore south 55° west; the western cape south-west $57^{\circ} 30'$. I compute the length of the island at 15 miles. Cape Alaksa lies nearly north of the mountains on this island; the distance about 38 miles.

Shortly after seeing this place (Cook's Halibuts Island) we rose a number of smaller, forming the group called Shumagins, from their first discoverer,—a sailor in Bering's expedition. They extended from north-west to north-east, as far as the eye could reach. At one in the morning we were pretty close in with the most remarkable of them, called by the natives Animok, and by the Russians Olenoi. This is very high and bluff; the others are less elevated. This is in latitude $54^{\circ} 44'$, longitude 198° , and about ten leagues from Alaksa. All these islands are surrounded by rocks, some above water, and others only discernible by the breakers. We could not get a good view of the main land, on account of the thick weather; but now and then saw the tops of tremendous mountains covered with snow.

We

We had a fresh breeze from the west, sailing under close-reefed topfails at about six miles, north-east and north north-east; hazy, with a rough sea. Towards night the wind fell scant. On account of the immense number of islands, we stood to the west south-west and south-west, with the intent of standing in again at day-light to view them.

Early in the morning of the 21st, we had a gentle breeze from north north-west, with pretty clear weather. At 4° we observed cape Alaksa north-west 68° , at $8^{\circ} 31' 45''$; our time-keeper gave the longitude $199^{\circ} 32' 45''$, latitude $55^{\circ} 3' 54''$. The islands Nagai and Kagai being right a-head, we wished to go between them; but the breakers induced us to give up this idea, and vary our course from east north-east to east by south, with a westerly breeze, going at four knots. At $5^{\circ} 17' 20''$ P. M. longitude by time-keeper $200^{\circ} 35'$, latitude $54^{\circ} 54' 24''$. At half past seven in the evening, we observed a three-seated baidar, and five smaller ones, near the ship. When they came alongside we hoisted the rowers and their baidar on board, and learned that they were out on the chase for sea lions and seals; that their company consisted of more than one hundred Aleutes, under the direction of the Russian in the three-seated baidar; and that they were hunting for Panofsky's vessel, now lying off Alaksa. We laid-to about three hours with our main topfail to the mast; and at day-break of the 22d sent them off. The Aleutes left us with reluctance, and complained bitterly of the treatment that they met with, and of being compelled to serve for years without receiving any recompence. We, however, had interpreters on board, and could not keep them. At noon our observed latitude was $55^{\circ} 9' 27''$, variable light airs. At $5^{\circ} 7' 45''$ P. M. our time-keeper gave the longitude $201^{\circ} 59'$, latitude $55^{\circ} 11' 20''$.

All

All the 23d we had variable light airs and calms, with foggy and hazy weather.

The group of Shumagin islands are very close together, almost innumerable, and extend from Alaksa south 15 or 16 leagues, and from east to west about 60 leagues; all of them high and barren, exhibiting a great similarity in their appearance, though of various forms and sizes. Neither tree nor shrub is to be seen upon them. The low places appear green; but a brownish hue distinguishes all the higher mountains, except such as are covered with snow. Some project into the sea in rugged cliffs; some are sharp capes, and often terminate in bluff heads. There appear some convenient coves; but it would be hazardous to enter them, on account of the detached and sunken rocks that are scattered about: nor are there any navigable straits between them; but they must be passed either to the south, or close in with Alaksa. These islands are generally frequented by some company of hunters for seals, sea lions, and birds. Sea otters are very seldom found hereabout; but whales are very numerous, as are seals of different kinds, &c. We sent our jagers out in the boats during the calm to shoot birds, some of which we found very good eating.

Variable winds and hazy weather continued till the 24th at noon, when we got a sight of the sun, and our latitude proved $55^{\circ} 41' 7''$, longitude $201^{\circ} 43'$. About half past twelve a gentle breeze sprung up from the south; and, sailing north by east about two knots, at one we saw land ahead. At seven in the afternoon we rose more land, bearing north-east and south-east; soundings 37 fathoms, fine sand. At midnight bore away to the south-west about two hours, when we again stood in for land, which is called

called by the Russians the islands of Evdokeeff (the largest, Sime-dan), which bore, the 25th at noon, south-east, distant about 10 miles; our latitude observed, $56^{\circ} 10' 40''$, longitude corrected, $202^{\circ} 55'$. We sent out a jager, with two Aleutes, to shoot birds. At two we had variable light winds and cloudy weather. Three baidars came along-side, with a Russian hunter from Shelikoff's Establishment at Kadiak, having about 200 natives in company, in chase of sea-lions, kotic, and other seals, birds, &c. At three P. M. being about three miles from the islands, Captain Billings went on shore with the naturalist. It was almost calm; and at five P. M. he returned, describing the islands as complete rocks of coarse granite, with a few stunted vegetables growing on the low parts. Our three hunters (who went out in a three-seated baidar purchased at Oonalashka), not returning, we fired signal guns. At six P. M. the natives, &c. left us, and the Russians promised to seek our men and send them off. We lay-to all night, with our main-top-sail to the mast, and kept a lanthorn at the mizen peak. At four o'clock in the morning of the 26th, a gentle breeze sprung up from the south-east, and we kept plying off the islands, with very hazy weather. At six the men came on board, telling us, that they had lost sight of the ship in the haze, and only saw her this morning at day-light, when they put off. At $7^{\circ} 50' 10''$ we got a sight of the sun; longitude, by time-keeper, $203^{\circ} 20'$, latitude $56^{\circ} 15' 39''$. At noon, our observed latitude was $56^{\circ} 20' 24''$; the afternoon cloudy, with a moderate breeze from south-east, steering north-east by east. At two P. M. we saw the island Okamok in the hazy horizon, bearing south-east 56° , distant about six leagues; and at eight P. M. it fell little wind and rain.

June 27th, at five A. M., we saw the lofty mountains on the island of Kadiak; and at eight P. M. saw the low islands Toogedach

dach and Sichtunach, distinguished in Captain Cook's chart by the name of Trinity island.

The 28th, at break of day, we got in pretty well with the island of Kadiak, keeping an easterly course with variable light winds between the north and west, and a clear sky. At five A. M. numbers of the natives came off in their canoes, of whom the greater part were taken on board and served as pilots, describing with great accuracy the depth of every opening.

The south extremity of this island forms a low point of land called by Captain Cook Trinity Cape. It runs out narrowing from mountains of a moderate height. Off this cape, at the distance of one mile, is the island Anayachtalak, which Shelikoff names Egichtalik, about three miles and a half north of Trinity Island. The straits have soundings from 36 to 16 fathom, over a bottom of coral and shells. Toogidach is low and barren; Sichtunach lies to the east of it three miles. This is low in the middle, with a small bay, but both the extremities are high land. The western part of Kadiak, though mountainous, is interspersed with vallies, which produce only a few low shrubs, and appear at a small distance like inlets; but a barrier of surrounding rocks forbids the approach of any vessel. In the afternoon we had gentle gales from the south-west and west; our course was north-east, and north-east by north. At $4^{\circ} 45' 50''$ apparent time, our longitude proved, by the time-piece, $205^{\circ} 50' 30''$, latitude $56^{\circ} 49' 8''$; variation 27° east. When the north-east bluff cape of Sichtunach bore south-west 49° , distant two miles and a half, the eastern point of Anayachtalak was north-west 79° , by compass, distant about two miles. Having passed these straits at 10 o'clock in the evening, with a westerly breeze and squalls, we got close

in with a small island called by the natives Nasikan, 200 fathoms from Kadiak. We passed these straits with 24 and 25 fathoms water over a rocky bottom, and soon after shaped our course north north-west for the bay. Nasikan is a remarkable island, two miles long, and one wide; consisting of two round-topt mountains, which caused Captain Cook to name it Two-headed Point. Another projecting promontory, three miles from Two-headed Point, in a direction east by north, he called Cape Barnabas. This is the southern cape of the island Kunakan, or Kukan, and bears south-east of the bay, Treck Svatiteley, in which Shelikoff has his Establishment: between these two islands are the straits that lead to the bay, which is about a mile wide at the mouth, where soundings increase to 50, 70, and 75 fathoms. On entering the bay the 29th at day-break, with a moderate breeze from the west and west by south, we could not get soundings with 100 and 150 fathom line. The shores are steep and rocky; some detached rocks run out a great way, and are nearly hidden at high water. We found great difficulty in getting into the harbour, owing to contrary winds; and the great depth prevented our sending out a kedge. We therefore plyed to windward till half-past three in the afternoon, when we got above the harbour close in with the western shore, where we sent a tow-line with all the hands that we could spare, who, assisted by the natives, hauled the ship into the small harbour, and we came to anchor in a muddy bottom, eight fathom, at six P. M. Here we made the following observations:

This and the nearer islands are inhabited by about 1300 grown males, and 1200 youths, with about the same number of females, according to the register kept by Shelikoff's Establishment, now under the direction of Yefftrat Ivanitsh Delareff, a Greek; who informed

informed me, that he had now out on the chase, for the benefit of the Company, upwards of 600 double baidars of the natives, containing each two or three men. These are divided into about six parties, each under the direction of a single Peredoffhik, or Russian leader. Beside these, small parties are sent out daily to fish for halibut, cod, &c. Females are employed in curing and drying fish; in digging, washing, and drying edible roots; in collecting useful plants, berries, &c.; and in making the dresses of the natives, as also for the Russians. About two hundred of the daughters of the chiefs are kept at the Russian habitations near our anchoring place, as hostages for the obedience of the natives; and, as far as I could learn, they are perfectly well satisfied with the treatment they meet with. The males are less satisfied; and, at the first arrival of the Russians, seemed inclined to oppose their residing on the island; but Shelikoff, surprizing their women collecting of berries, carried them prisoners to his habitation, and kept them as hostages for the peaceable behaviour of the men, only returning wives for daughters, and the younger children of the chiefs. Every considerable habitation of the natives had large baidars capable of containing forty or fifty men. These were all purchased by Shelikoff; and the natives are now in possession only of small canoes, none of which carry more than three. They seem reconciled to the rules introduced by the present chief of the company, Delareff, who governs with the strictest justice, as well natives as Russians, and has established a school, where the young natives are taught the Russian language, reading, and writing. He allows a certain number of the hostages to visit their relations for a stipulated time; these returning, others are allowed to go; and, upon application of any one for his child's absence, it is not refused. The whole number of hostages is about three hundred.

The males are employed in the chase in rotation, as are also the females: I mean, for the benefit of the community; for they lay in an amazing stock of provisions, roots, berries, &c. to be sufficient for a winter's supply for the whole island, natives as well as Russians; a circumstance which seems, more than any thing else, to convince the savages that the Russians are not their absolute enemies; for Delareff says, that they never laid in a supply of food for the winter till the Russians taught them; but, in bad weather, were obliged to collect cockles, muscles, and other shell-fish, or refuse of the sea.

Luxuries, such as tobacco, beads, linen, shirts, and nankeen dresses, they pay for in particular. I observed, that such of the parties as were successful in procuring rich skins, received a stipulated payment; for each sea-otter, a string of beads about four feet long; for other furs in proportion; and that only food and the skins of seals were the property of the community, of which the natives certainly enjoy the greater share, being by far the more numerous; and the skins of seals are chiefly used by the natives to mend their baidars, and make new ones; in the latter case, they are purchased for furs, foxes, marmot, otters, &c. or by service.

This Establishment consists of about fifty Russians, including officers of the company, and Sturman Ismailoff, who is here, on the part of government, to collect tribute: this is the same Russian officer that was seen, by Captain Cook's Expedition, at Oonalashka, in the year 1778. He was one of the associates of Benyowsky's conspiracy (by his own account forced away); but Benyowsky only carried him to one of the Kuril islands, where he

he flogged him and put him on shore, with several others that were disaffected.

The buildings consist of five houses after the Russian fashion. Barracks laid out in different apartments, somewhat like the boxes at a coffeehouse, on either side, with different offices: An office of appeal to settle disputes, levy fines, and punish offenders by a regular trial; here Delareff presides; and I believe that few courts of justice pass a sentence with more impartiality: An office of receival and delivery, both for the company and for tribute: The commissaries' department, for the distribution of the regulated portions of provision: Counting-house, &c.: all in this building, at one end of which is Delareff's habitation. Another building contains the hostages. Beside which, there are storehouses, warehouses, &c. rope-walk, smithy, carpenters' shop, and cooperage.

Two vessels (gallies) of about 80 tons each are now here, quite unrigged, and hauled on a low scaffold near the water's edge. These are armed and well guarded, and serve for the protection of the place. Several of the Russians have their wives with them, and keep gardens of cabbages and potatoes, four cows and twelve goats. Delareff is of opinion, that corn will grow near the establishment which they are about forming in Cook's river.

One of the Russian officers, who has cohabited with a female native some years, and has had several children by her, applied to our priest to christen her in form, and then join them together in the holy bands of matrimony; which was done. She is a handsome woman, but punctured on the chin, and her under lip is perforated. Her house was extremely clean, as were also her children, and the latter apparently very healthy. She was dressed in

the Siberian fashion, and seemed perfect mistress of Russian economy. I dined with them, and was very well satisfied with the treatment that I met with.

It was matter of amazement to me, while in Irkutsk, Yakutsk, and Ochotsk, to hear the very high wages given by Shelikoff to his common sailors; being from 600 to 1000 silver rubles yearly: their engagement, however, obliges them to purchase all their necessaries and luxuries of the Company at the market price. Here is only one market, which is the Company's stock; and the prices of articles are as follow: Brandy, one ruble per glass; tobacco, 50 rubles per lb. and sometimes more; a shirt, made of Russian coarse check, something resembling buntine in the looseness of the thread, 10 rubles; boot legs, without soles, 15 rubles and upwards; and every thing in proportion: so that their expences (they not being allowed to trade) exceed their salaries. Some of the men bitterly complained of this; but they laid nothing to the charge of Delareff: on the contrary, every one, native and Russian, spoke highly in his favour, and acknowledged several indulgencies received at his hands.

Shelikoff has called this island Kichtak, as the original name of it; in which, however, he is mistaken; for Kichtak, or Kightak, is merely an island; they call the Trinity Island Kightak Sichtunak; this, Kightak Kadiak; and, to my astonishment, one of them called Alaksa a Kightak, or island; and affirmed, that there were straits three days' row to the north of Kadiak. I made it my business to ascertain this, if possible; but had not an opportunity of learning any more, than that a river from a lake fell into the sea west of Kadiak, and that they carried their boats over a low mountain to an inlet, which communicated with Bristol Bay.

Bay. This was known to the Russian hunters and several natives, who, in confirmation, said, that they obtained the tusks of the Walrus, or Morzh, from the opposite shore of Alaksa: their best spears were pointed with them.

The natives call themselves Soo-oo-it, and their magicians Kan-ghémeut. I could not obtain any name from them for the Almighty; although they say, that there is a superior being who has the command of all the spirits; and that the wrath of these spirits is only to be appeased by offerings, and in some cases their slaves are sacrificed, but very seldom; for all the prisoners that they take in their wars (which are almost perpetual, one tribe against another) become slaves, and are subject to ill treatment, particularly from the women. The female prisoners are all slaves, and sold from one tribe to another for trinkets, instruments, &c. Not only their prisoners, however, are their labourers or slaves, but orphans become the property of those who bring them up, and are frequently redeemed by the relations of the parents; especially such as were inhabitants of other islands.

The dwellings of the natives differ from those of Oonalashka. They are but very little sunk in the ground, and have a door fronting the east, made of a framed seal skin; a fire-place in the middle; a hole over it, through the roof of the house, which serves at once for the discharge of smoke, and the admission of light. The sides, partitioned off for sleeping and sitting places, are covered with grass mats, much coarser made than those of Oonalashka. Each hut, or dwelling, has a small apartment attached to it, which serves for a vapour bath; stones are heated in the open air, and carried into these places, where the heat is increased.

increased to any degree by the steam from water which is poured upon them.

The customs of these savages are nearly allied to those of the Oonalashkans. They have the same kind of instruments, darts, and boats, or baidars; but much worse made; nor are they so active upon the water. Their dances are proper tournaments, with a knife or lance in the right hand, and a rattle in the left; the rattle is made of a number of thin hoops, one in the other, covered with white feathers, and having the red bills of the sea-parrot suspended on very short threads; which, being shaken, strike together, and make a very considerable noise: their music is the tambourine, and their songs are warlike. They frequently are much hurt, but never lose their temper in consequence of it. In these dances they use masks, or paint their faces very fantastically. The dances of the women are only jumping to and fro upon their toes, with a blown bladder in their hand, which they throw at any one whom they wish to relieve, and who always accepts the challenge.

The first character, is the athletic and skilful warrior; the second, the fleet and expert hunter; the former enjoys his prisoners and the booty of his enemy; the latter has his wives, labourers, and slaves by purchase, and the ability that he possesses to maintain them. The most favoured of women is she who has the greatest number of children. The women seem very fond of their offspring; dreading the effects of war, and the dangers of the chase; some of them bring up their males in a very effeminate manner, and are happy to see them taken by the chiefs, to gratify their unnatural desires. Such youths are dressed like women, and taught all their domestic duties.

There



Alexander del.

R.H. Cromek Sculp.

A Man of Kadiak

Published March 2^d 1802, by Cadell & Davies, Strand.

There is no ceremony in marriage: the ability to support women gives authority to take them, with their consent; in which case, the couple are conducted by the relatives of the girl to the vapour bath, which is heated, and they are left together; but some present is generally made to the girl's father and mother. I inquired whether they lent their wives to one another? They told me, No; unless they were barren, and desired it; if they then had a child, they became the property of its father.

No other ceremony is observed at births, than washing the child, and giving it a name.

The dead body of a chief is embalmed with moss, and buried. The most confidential of his labourers are sacrificed and buried with him; also his instruments of war or the chase, and some food. Numbers of the natives are baptized; but Delareff, the director of the Company, would not allow our priest to compel any to become Christians; he, however, assisted him in persuading as many as he could. Such as were at the school established, willingly embraced the Greek religion, as did also numbers of the women.

The dresses of the natives are the same as at Oonalashka, but worse made; they are open about the neck, and have but very few ornaments. They are extremely fond of blue beads and amber, and carry on a trade with the natives of the neighbourhood of Cook's River, where they purchase their baidars and canoes for trinkets, provisions, and oils of whales and seals. They use darts and lances headed with slate, with which they kill the sea animals. They also use poison to their arrows, and the Aconite is the drug adopted for this purpose. Selecting the roots of such

A a

plants

plants as grow alone, these roots are dried and pounded, or grated; water is then poured upon them, and they are kept in a warm place till fermented: when in this state, the men anoint the points of their arrows, or lances, which makes the wound that may be inflicted mortal.

They treat their visitors, upon first entering their dwellings, with a cup of cold clean water. When they have rested a while from the fatigue of rowing or walking, they put before them whale's flesh, the meat of sea lion, fish, berries mixed with oil, and boiled farana, also mixed with fish oil; and it is expected that the guest shall eat all that is set before him. In the meantime their bath is heated, and the guest is conducted into it, where he receives a bowl of the melted fat of seals or bears, to drink. The more the guest eats and drinks, the greater honour is done to the host; but if he cannot eat all that is put before him, he must take the remains away with him.

They begin their chase in February on the south side of Kadiak; for the kotic it continues all March; in April they depart from Kadiak to the neighbouring islands for sea otters, which are in the greatest perfection in April and May; also for seals, sea lions, birds eggs, &c. The 1st of June whales and other fish are caught, farana gathered, &c. The first fish that appears is the halibut; then salmon, the same species as in Kamtschatka. They continue this chase till the end of October, when they retire to their winter dwellings. November they spend in visiting each other, feasting in the manner of the Oonalashkans, and dancing with masks and painted faces.

A Vocabulary of their Language, as well as of the languages of the other nations that I have visited, is given at the end of the Volume.

The birds that I observed hereabout were such as I saw at Oonalashka, and about Shumagin's islands: wild geese*; different kinds of gulls; the crested and tufted auk; blue pettrel, of a rusty dark brown, very like the swallow; the foolish and black guillemot; divers, and a great variety of ducks: the flesh of which are eaten by the natives, the skins used for dresses, and the bills, particularly of the sea-parrot, employed for ornament.

Bears now and then appear upon the island of Kadiak, swimming across the straits that divide it from Alaksa five miles. The whistling marmots are numerous, as are also mice. Foxes, and stone-foxes, are scarce since the establishment of the Russians; in fact, these and the marmot are the only animals that the Russians can kill; for they are not capable of chasing the sea animals, which requires particular agility in governing the small leather canoes, in which the natives pursue the sea-lion, the urfine-seal, sea-otter, porpoises, and common seals.

The sea-lion, called by the Russians sivootsha, is the strongest and largest of the seal kind; covered with dark coloured coarse hair, which is very thick and long about the neck and shoulders; the hind part is tapering, with smooth short hair. The largest is about eight feet long. They copulate and pass every night on

* Goose with a black bill; the upper mandible has a callous elevation. A triangular white spot runs from the throat along the cheeks on both sides, to the hind part of the head. The bottom of the under part of the neck, vent feathers, belly, and coverts of the tail, white; breast, back, and wings dusky brown; legs a dull dark colour.

some rock by themselves, one male and a number of females, driving away, or killing, every other species of animal that may approach them. The males have frequently very desperate engagements, and the conqueror is immediately joined by all the females. They are extremely bold, and will attack men if disturbed on the rocks. They have a small white spot on the temples, nearly as large as a half-crown piece; and this is the only place about them vulnerable by arrows, which hardly pierce the skin in other parts; but, if poisoned, they penetrate deep enough to infuse the baneful quality. The meat of these animals is cut in thin shreds, and dried by the hunters, who esteem it good eating. I thought it bad and fishy; but the head, which is equal in size to that of a large ox, I thought very good, if well stewed, and eaten with farana and other edible roots. The second species is the kotic, or ursine-seal: the largest are about six feet long, covered with beautiful silvery grey hairs, of the colour of the Siberian squirrel, having a soft downy under fur, resembling brown silk. The young kotic are extremely playful in the water; the head very nearly resembles that of a lamb with long ears; and they live upon rock-weeds. The flesh of the young ones is well tasted, but the colour is blue, and unpleasant to the eye. These swarm together in great herds on the low islands, and are killed by being struck just above the nose with a short bludgeon. When they find themselves in danger, they attempt to bite. When very young, the fur is of a beautiful short glossy black, which changes to silvery when they grow up; and when they become very old, they are almost white.

The most valuable fur is that of the sea otter, called by the hunters, and in Russia, Morikoi Bóbre. The fur of the young ones is rough and long, of a light brown colour (something like the young cub of a bear), and is called Medvedka, the diminutive of
of

of bear: this is of no value: the middling sized are darker and valuable; these are distinguished by the name of Koshlok: but the most valuable are what is called the Matka, or mother; the largest are about five feet long, with a rich fur nearly black, interspersed with longer hairs of a glossy white. The fur is upright, not inclining any particular way, from an inch to an inch and a half long. I had a young sea otter dressed, and it tasted exactly like a sucking pig. There are no more on the coast of Kamtschatka; they are very seldom seen on the Aleutan islands; of late, they have forsaken the Shumagins; and I am inclined to think, from the value of the skin having caused such devastation among them, and the pursuit after them being so keen, added to their local situation between the latitudes of 45° and 60° , that fifteen years hence there will hardly exist any more of this species.

Sea cows were very numerous about the coast of Kamtschatka, and the Aleutan islands, at the time when they were first discovered; but the last of this species was killed in 1768 on Bering's island, and none have been ever seen since.

Whales are in amazing numbers about the straits of the islands, and in the vicinity of Kadiak; the natives pursue them in their small boats, and kill numbers with a poisoned flate-pointed lance. Their melted fat is an article of great trade to the continent, being carried thither in bladders by the islanders; for which they obtain the land animals, boats, darts, slaves, &c.

I observed the same species of salmon here as at Ochotsk, and saw crabs; some shells of lobsters in the beach; cockles weighing a pound each, and a variety of other shell-fish. These are the food of the sea-otter.

The

The Halibuts in these seas are extremely large, some weighing seventeen poods, or six hundred and twelve pounds avoirdupois. The fins and tail are good eating; but the body of the fish is very coarse and dry. The liver of this fish, as also of cod, the natives esteem unhealthy, and never eat, but extract the oil from them.

The harbour in which the Russians have their Establishment is called Treeh Svatiteley. It is on the south-west side of the Bay formed by a low spot of land running out from the side of one of the loftiest mountains; and, taking a circular sweep north and west, forms a harbour of about two miles in circumference, with soundings from eight to three fathom, over a bottom of mud. Near the dwellings, is a fresh water brook issuing out of the mountain; and at the bottom of it are their cook-houses, and two insignificant salt water lakes.

This island is subject to frequent earthquakes, which are sometimes very violent. We observed high water at the new moon at $11^{\circ} 45'$, the rise about eight feet. The variation of the compass 26° east by the meridian line: the longitude of the harbour $205^{\circ} 30'$, latitude $57^{\circ} 5'$.

The natural productions of the island that fell under my view were, the elder in abundance; the low willow; some brushwood, ginseng, wild onions; the edible roots of Kamtschatka; several species of berries, with currants and raspberries in abundance, the latter white, but extremely large, being bigger than any mulberry that I have ever seen, but watery in taste. Several of the natives had small bunches of snake-root, which they obtained from Alakfa.

In

View of Shelkoff's Establishment on the Island of Kodiak.



- 1 Travelling Church.
- 2 Astronomical Tent.
- 3 Gallies hauled on shore.



The North extremity of the Island Tanaga bearing South distant 15 Miles.



Island of Atcha 22 June 1791 bearing S.E.

In the interior, they have good timber of common pine; and on the eastern point of the island, which Captain Cook called Cape Greville, they have a very considerable forest of pines, whence they bring the trees to build their huts here, and repair their vessels.

CHAP. XIV.

Leave Kadiak.—Island of Afognak.—Shuyuch, or Point Banks.—Icy River.—Fall in with a groupe of Islands, and are visited by some of the Natives.—Anchor in Prince William's Sound.—Visited by the Natives, whose propensity to thieving is checked by the sagacity of two Dogs.—Captain Billings assumes an additional rank.—Captain Saretshoff's Account of his Survey of the Coast.—Cape St. Elias ascertained by an Extract from Mr. Steller's Journal.—Mr. Delareff's Account of a former Visit to the Sound.—Some Reflections of the Author.

HAVING remained here at anchor until the 6th July, we took on board our astronomical tent, and the tent containing our travelling church, which were both erected on our arrival; and at five o'clock in the evening of that day, we hauled out of the harbour into the bay, and experienced as much difficulty in getting out, as we had before done in going in.

Mr. Delareff, the director of the Company, upon receiving intelligence that a Spanish frigate under the command of Captain Mendoza was at the entrance of Cook's river, acquainted us, and took his passage on board our ship. We were informed, that the Spaniards were in the habit of visiting the settlements yearly, and that the Russians obtained some provisions, and a considerable quantity of sea-otter skins from them, in exchange for hardware, beads, and linens.

It

It was Captain Billings's intention to visit this ship. We had variable light airs from north to west, so that we made but little headway; and observed the whole of the south-east and east shores of the island very lofty and broken, replete with inlets and bays; and numberless rocks close in with the land. The 7th, at $5^{\circ} 22' 55''$ P. M. our longitude $207^{\circ} 47' 45''$, latitude $57^{\circ} 25' 40''$, Yellowoi Muis, or Cape Greville, bore north-west.

The 8th, at day-break, we saw the island of Afognak, upon which the Russians have an establishment. This island is covered with fine timber inland. Its distance from the north extremity of Kadiak is seven miles. The straits are replete with islands and rocks. Two miles north of Afognak is the island Shuyuch, surrounded with rocks, and about four miles in length. Its northern cape was seen by Cook, who named it Point Banks.

Contrary and baffling winds from the west and north-west prevented our weathering Cape St. Elizabeth. In the morning of the 11th we had rainy weather, but saw in the haze the land east of the cape, which was much broken, and mountainous. At 10 o'clock a conical mountain on the continent bore north-west 22° . We observed a river, which the hunters call Ledenaiia Reka (Icy River), from its being continually frozen, and which serves them for a direction into the Sound. It bore north-west, distant about 15 miles, and is situated in latitude $59^{\circ} 36'$, longitude $209^{\circ} 45'$ east. Near the mouth of this river are a groupe of islands, and numerous detached rocks. We had variable light airs from the south-east to north-east, with calms, and foggy and misty weather, which hid the land till Friday the 12th at two P. M. when we again saw land about 15 miles ahead. Our course was north north-west, with light airs from the north-east. Observing se-

veral openings, and Delareff assuring us that there were no sunken rocks, but good anchorage in the bays, we stood in, and got among a variety of small islands. When we were at about three miles from shore, two of the natives came off in their canoes, making the general sign of peace, by expanding their arms; we repeated their signal, and hoisted a flag, upon which they came on board, bringing with them the skin of a young sea-otter, a river-otter, and a seal; for which they received tobacco and beads. They stayed but a short time on board; and Delareff went on shore in his three-seated baidar, which he brought with him, and two Americans, accompanied by the natives who had visited us; he not seeing any probability of getting with the ship to Cook's river. Though quite unarmed, he did not apprehend any danger; a plain proof that his company had the complete friendship of the natives. We desired him to acquaint the Spaniards, that we wished much to see them, and should continue sometime in Prince William's Sound. He gave us a young American, who understood the Russian language, for our interpreter. This young man spoke with the two natives, who said, that almost all the land which we saw was islands, which produce very fine timber to the water's edge. Our latitude was now $59^{\circ} 15'$; and, though we were not above three miles from the nearest land, quite embayed, we got no soundings with 100 fathom line. We observed the current setting to the westward at two knots and a half. Variable light airs between south and east continued, with calms all day. The 13th, at $4^{\circ} 4' 25''$ P.M., our longitude was $209^{\circ} 15'$, latitude $59^{\circ} 17' 45''$. Baffling winds continued till the morning of the 16th, when a moderate breeze sprung up from the south-east. Our course was north-east, at about five knots, with a heavy sea and rainy weather. In the afternoon we had again little wind. In the morning of the 17th, at four o'clock,

we saw Montague island (called by the natives Tfukli) bearing north 5° east, distant about seven leagues. At $8^{\circ} 36' 25''$ A. M. our longitude was $211^{\circ} 13'$, latitude $59^{\circ} 43' 38''$. We stood away to the eastward of the island, to get into Prince William's Sound, which we accomplished on the 19th at four P. M., and brought up near the place where Captain Cook lay at anchor in 1778.

In the morning of the 20th July, we sent our observatory, with all the apparatus, on shore, and were visited by numbers of the natives, who were at first very shy; rowed about the ship holding up their hands with bear-skin gloves on; singing, and making signs of friendship. On being assured of friendly treatment, they soon came on board, and manifested a strong inclination to steal iron articles. They complained bitterly of the ill treatment that they had received from a Russian vessel under the command of Sturman Polutoff. These Russians had taken their sea-otter and other skins from them without making any returns; wantonly shot some of their people, and carried several of their women away by force.

They seemed perfectly satisfied with the treatment and some presents which they received on board, and left us with a promise of returning with some skins. However, they made shift to take with them every thing that lay about carelessly, and the iron tiller of the boat along-side.

We kept a strong guard on board, and also at the observatory, to prevent our being surprised; for the natives appeared resolute enough to undertake any thing.

A number of them visited Captain Billings in his tent on shore, and he treated them with tea; of which, however, they did not seem very fond, nor of brandy, nor tobacco; for these articles had not yet been introduced among them, or tasted, except by a very few who had been on board the Russian vessels; but they were all fond of sugar.

A water spaniel that Captain Billings had with him did not seem to like the appearance of these savages; however, he lay still in the middle of the tent. The cabin-boy had carelessly placed the tea-board so, that part of it, with spoons, &c. was seen on the outside of the tent. One of the natives attempted to appropriate the spoons to himself; this no one observed but the dog, who sprang up, leaped over the natives in the tent, seized the thief by the hand with the spoons in it, and held him fast till the Captain told him to let go: a circumstance which, I believe, kept them honest afterwards in the dog's presence. Captain Hall had a pointer on board, which did the same service there. The natives wished very much to possess these dogs, and one of them desired Captain Hall to sell him half of his; which induced me to think that they wanted to eat them, or supposed that they were kept to be eaten by us.

Captain Billings, being now arrived at the place which *he supposed* to be Cape Saint Elias, discovered by Captain Bering in 1741, assumed an additional rank, conformable to the mandate of Her Imperial Majesty, and took the oath administered by our priest, according to the rules of the service. This was upon Saint Elias's day.

Two men and a woman had accompanied us from the island of Oonalashka, by their own desire, to serve as interpreters. Their chief view was, to get out of the way of the Russian hunters now on their island; and Captain Billings promised to leave them at home on his return, when they thought the hunters would be gone. They had brought their small canoes, or baidars, with them. I was the only person on board, except the Aleutes, that could venture out in these boats; and the 22d, being a fine day, with light airs and calms, I took a small excursion merely for exercise, quite alone; but received Captain Hall's injunctions (Captain Billings being at the observatory) not to go on shore, nor venture to any great distance. I left the ship at one o'clock, and paddled with the tide at the rate of about eight miles in the hour, without paying any attention to the distance. On attempting to return, I found the tide too strong against me. I did not see a single native any where, nor any traces of them, and resolved to enter a small cove to wait the return of tide, and to get a draught of fresh water from a brook that I observed. After entering a small inlet, I discovered that my retreat was cut off by some of the natives. My dress was a nankeen jacket and trowsers; and I had a few clasp knives and beads in my pocket, which I gave the natives; particularly a woman whom I observed amongst them in a nankeen camley, and who addressed me, to my astonishment, in the Russian language; which rather increased the uneasy situation that I found myself in, on account of the complaints that they had made, on board, of Polutoff's company. I found, however, no great difficulty in persuading her that I was not a Russian. She gave me a bowl of water, and treated me with berries upon which the oil of seals had been poured. She told me, that Polutoff had taken her away by force, and kept her above a year, till she had learned the Russian language. After that,

that, she associated with Zaikoff, and returned to the Sound, making herself their interpreter. She said, that Zaikoff, who was a very good man, and behaved well to every body, had favoured her escape, and that they had been well revenged upon Polutoff and his crew; for that a boat from each of the vessels had been on shore to cut wood, and had pitched two tents (one for each company) at a small distance from each other. It was in the autumn; the night was dark; and only one man watched at a fire side, sitting on the beach. The natives crawled, unheard, close to the watch at Polutoff's tent, killed him, and, rushing into the tent, murdered every soul there, without molesting Zaikoff's tent, or any of his people.

She invited me to their dwelling, and assured me that I should be safe. I asked her how far it was. She said, that if I left the ship at sun-rise I should arrive at her dwelling before sun-set; that the habitation was across the straits at the end of the Sound (pointing to the eastward of the north), near the discharge of a large river. This induced me to ask her, if the land about us constituted any part of the continent. After some conversation between her and the chief, she told me, that the openings were all straits. I promised that I would go with her if they would come on board in the morning for me, and that I would give them beads and other trinkets. At half past three it was high water, and I put off, very well pleased to get away; for they all admired my baidar so much, that I was much afraid of losing it, and my sensations, when I first discovered myself in their power, were very unpleasant. I arrived on board at half past four, and relieved Captain Hall of his anxiety on my account, but forbore relating my adventure, lest it should prevent my future excursions,

sions, which I promised myself should not lead me into such danger a second time.

Early in the morning of the 23d the woman came alongside, with about ten double canoes, and brought a sea-otter skin, which I took for a few beads. They asked me to accompany them, and the chief would remain in the ship till I came back; but Captain Billings would not agree to it. Neither Captain Hall nor Saretshoff saw any reason for objecting to this trip, especially as the chief offered to stay on board as hostage for my return. Captain Billings at this time had the woman and chief in his cabin, out of which they returned in great haste, and in seeming rage left the ship. I was extremely sorry, as it deprived me of the hopes of getting such information as I wished to obtain concerning the straits, and particularly the large river that she spoke of. They rowed to the observatory, and took a casque from the head of one of our grenadiers, with which they attempted to run away, but returned it on being overtaken.

They, indeed, shewed an astonishing propensity to thieving, even of such things as could not have been of any service to them; and, upon being detected, returned the articles with amazing composure. Their language and manners differ but very little from those of the islanders at Kadiak.

Towards evening of the 24th July, Captain Saretshoff went with the long-boat armed, to survey the Sound, to examine the dwellings of the natives, and to discover whether the land was any part of the continent, or merely islands. He returned in the afternoon of the 27th, and gave the following account of his excursion.

“ I went

“ I went north about eleven miles and a half, where the coast
“ trends eastward. Here six Americans, in four baidars, over-
“ took us, and said that they wanted to conduct or accompany
“ us. In the evening, when we halted for the night in a small
“ bight (not so far as they wished us to go), they left us. Here
“ we saw a cross affixed *. The next day we proceeded; and
“ at the distance of sixteen miles and a half the land trended
“ away to the south-east, into what appeared to us a very exten-
“ sive bay. On account of foggy weather, we could not well
“ discern the opposite shore, which, however, appeared at times,
“ and seemed rather low land. At eighteen miles the shores led
“ to the north-east. Here we again saw the natives in eight
“ baidars. They said that they had been on the chase out at sea,
“ and that we were in the straits; but advised us not to continue
“ our course much farther, as it was very shallow, and the
“ breakers were so violent that they found great difficulty in
“ passing in their small canoes; adding, that the place was quite
“ dry at low water. They said, that the opposite shore was like-
“ wise a large island, and that the straits were also shallow and
“ nearly dry at low water. The opposite shore was not to be
“ seen on account of the fog. We proceeded, in all, twenty-
“ three miles. The fog clearing up a little, discovered both
“ shores and the sea. The cape on the right hand was about
“ two miles distant. The left shore trended to the north-east.
“ At a little distance from shore were two small islands, and a de-
“ tached high rock. We crossed the straits backwards and for-
“ wards in returning, with soundings from one and a half to two
“ and a half fathoms, sand. It was high water; and, that the

* I am inclined to think that it was erected by Zaikoff, or Polutoff, in consequence of their people being buried here.

“ boat

“ boat should not be left dry, we proceeded back at seven o'clock
 “ in the evening, and passed the night of the 26th in a small
 “ bight about six miles from the ship. Here we found a few na-
 “ tives in their summer habitations for the sake of the chase,
 “ who received us in a very friendly manner, assuring us that
 “ they had no bad intentions, because we behaved well to them,
 “ and not like some visitors who had been before us. I told
 “ them, that those who treated them ill were not government
 “ ships; and that whenever they saw a ship with such a flag as
 “ ours, they might go on board with great safety.” (* Signed
 G. Saretshoff, and dated 27th July 1790.)

He did not like the appearance of some of the natives, and kept a very good look out, to prevent his being surprised.

On the 28th, I made a little excursion in the long-boat well armed, with the naturalist and drawing-master, and returned the next day without seeing any of the natives, or meeting with any circumstance worth relating. An old man came aboard on the 29th, who seemed very good natured and intelligent. Mr. Saretshoff and I entered into conversation with him through our American interpreter, and asked him, how long it was since the first ships made their appearance among them; and whether he remembered any boats having been lost? He answered, that several boats had been lost, which, by his account, we thought to have been Spaniards. He said, that they frequented (on the chase in

* I think it necessary to notice, that upon Mr. Saretshoff's arrival in Kamtschatka he discovered that his interpreter knew that the natives wanted him to go up the bay, that his boat might be left dry, when they meant to attack him and murder all his people. Upon Mr. Saretshoff's asking this interpreter why he did not mention it at the time, he said, “ I should have been safe had you been murdered; but, had I discovered their plan, I should certainly have been killed.”

summer) an island, which he described so particularly, as convinced us beyond a doubt, that it was the Kay's island of Captain Cook. He remembered, that when he was a boy, a ship had been close into the bay on the west side of the island, and had sent a boat on shore; but on its approaching land the natives all ran away. When the ship sailed, they returned to their hut, and found in their subterraneous store-room, some glass beads, leaves (tobacco), an iron kettle, and something else. This perfectly answers to Steller's * account of the Cape Saint Elias of Bering, and

* The following is a translation of this part of Mr. Steller's journal, which he kept in the German language.

" We saw land the 15th July; but, as it did not appear distinct enough to make a drawing of it, it was, on account of my having seen it first, said to be a mistake; but the next day it appeared beyond a doubt. The land was high, and an interior mountain was very plainly discernible sixteen German miles out at sea. I have never seen, in all Siberia or Kamtschatka, a more lofty mountain. The shore was broken every where, and discovered numbers of inlets and harbours. Every person congratulated the commander on the discovery; which congratulations he received not only with astonishing indifference, but even shrugged up his shoulders, and said to Mr. Plinifner, " We imagine that we have found every thing, and numbers are grown big with airy projects. Nobody considers *where* we have found land, the distance that we have to run back, or what may happen: perhaps passage-winds may prevent our return. We know not this land, nor have we sufficient provision to pass a winter."

" The 17th, on account of little wind, we advanced slowly. The 18th, towards evening, we came so close as enabled us to see plainly the beautiful forests that approached to the water's edge. The shore was even, and appeared sandy. We kept the continent on the right hand, sailing a north-westerly course to get behind an island consisting of a high mountain covered with wood, which was only to be done by plying to windward.

" The 19th we were two German miles off the north-west extremity of the island. We had observed, the day before, straits between it and the continent; and I thought that some considerable river emptied itself in the vicinity. My reasons were,—the current two miles out at sea; and the difference in the colour of the water, which was also fresher.

" I mentioned my conjectures, but they were laughed at. The whole of this day we employed in plying to windward, to get close to the island into the inlet that we had observed
the

and is undoubtedly the very spot where Steller landed, and where the things above mentioned were left in the cellar. Thus it is very plain, that Cape Saint Elias is not the southern point of Montague island, but Kay's island. This native farther told us, that at the north extremity of Kay's island, there was a bay sheltered from the wind; that the entrance at low water was as deep as his double paddle (which is about seven foot); and that there are runs of fresh water into it, but no great rivers. A very considerable river, however, falls into the sea a day's journey north of our anchorage, up which the natives travel 14 days to the residence of a different nation, the people of which supply them with knives, copper kettles, and instruments, and make their canoes.

the day before. The 20th we came to anchor between islands; and, in compliment to the day, named the extremity of the large island Cape Saint Elias," &c.

Chytroff, the master, was sent on shore to survey, and Mr. Steller accompanied him to make his observations on shore on the "three kingdoms of nature."

He saw the traces of inhabitants, and discovered one of their cellars, into which he entered. It contained,

1. Lukoshkan. These are a kind of box of the bark of trees, about two yards high, containing smoke-dried salmon.
2. A quantity of the sweet plant of Kamtschatka, but cleaned and prepared in a better manner.
3. Several species of grafs, cleaned like hemp: I took them for nettles, which grow here in abundance; perhaps used, as in Kamtschatka, for fishing-nets.
4. The dried inner bark of larch and fir in rolls, such as I have seen in Kamtschatka, through all Siberia, and even in some parts of Russia; and which is eaten in case of need.
5. Large packs of thongs of sea-weeds, of great strength.

Besides a few arrows made like those of the Tartars and Tungoose; blacked, and wrought so smooth, that I apprehend they have iron instruments.

He carried with him on board two bundles of fish; an arrow; a wooden instrument for making fire, resembling that used formerly by the Kamtschadals, with tinder made of dried leaves; a bundle of the wood; some bark, and some of the grafs.

Sailors were afterwards sent to leave an iron kettle; a pound of tobacco; a Chinese tobacco pipe, and a piece of Chinese silk; in return, they nearly plundered the cellar.

That these people trade with others farther inland, and obtain from them knives and other articles; but that his nation never go farther than 14 days' journey. That the articles of their trade are, the skins of sea-lions, for boats; oil of sea animals; small shells; and muscle-shells for points to arrows; and that these were a very powerful and warlike people.

Another observation of his, I think it very necessary to mention: it was a positive assertion, that there were straits and islands as far as we could see; and that to the south-east there was "A GREAT SALT WATER," with many entrances to it. I repeatedly asked the question, and could not be mistaken in the answer; and I would most willingly have stayed on the coast alone, to explore these unknown parts from tribe to tribe, until I had lost myself, or found my way to Europe through some of these cranny passages. I am aware, that I was thought a madman for it; but this madness, this enthusiastic confidence, would, I am certain, have assisted my success; nor would I have left unexplored a river of which we had such confirmed accounts, without good reason for it; for I never met with any men that would refuse assistance to one individual, who, without the means of being their enemy, was at all times in their power. Over and above all this, I declare, that I have complete confidence in a Supreme Being, who governs every thought, and inspires means of expression to secure the devotee in exploring his wisdom.

I hope that my rhapsodies will not offend my readers: they are notes penned at the instant when my feelings were most acute, and with a view of making them known to the public on a future day.

Captain

Captain Billings had received intelligence of this river from Mr. Delareff, the director of Shelikoff's companies at Kadiak, Afognak, and Cook's River; who gave the natives the character of good people; and said, that they ate, drank, and slept together in the most friendly manner; and I firmly believe what he said*.

We took in a number of fine spars, with a supply of water, and caught with our net in-shore some salmon, beside taking some flat fish by angling over the ship's side. Having hauled up a large skate while the natives were about the ship in their boats, as many

* I think it necessary to communicate the following intelligence of this Gentleman *verbatim*.

"I sailed from Ochotsk in the month of July 1781; arrived the 10th August at Com-mandorski (Bering's) Island, where I wintered. The second winter I passed at Oonashka; and the winter of 1783 at Prince William's Sound. I arrived on the 13th August in the offing before sun-rise, and sent out a boat well manned to seek a convenient harbour. The weather became thick and hazy; but when it cleared up I discovered a number of boats making to the vessel. The largest among them hoisted a flag; I did the same; they then rowed three times round the vessel, one man standing in the middle, singing, and waving his hands. Upon being invited they came aboard, and I obtained fourteen sea-otter skins for glass beads, chiefly blue. I offered them shirts and clothes, which they did not seem to want; and tobacco they rejected. They behaved in a very friendly manner. We were quite off our guard, and ate, drank, and slept together in the greatest harmony. They informed us, that two ships had been there some years back, and gave them great store of beads and other articles. By their description, these vessels must have been English. They had knives and copper kettles, which they said they obtained up a great river, about 14 days journey against the stream, where the natives were numerous, and had great quantities of copper.

"On the 8th September there seemed some alteration in their appearance, and they suddenly commenced a violent attack upon my people. I knew no cause, until the 21st, when the boat sent upon my arrival returned, and I found that there had been quarrelling and fighting between the boat's crew and the natives. I could never find out the origin of the dispute; but really think that my own people had been the aggressors; perhaps for the sake of a few skins. Polutoff's vessel was at that time in the Sound, and I left them there."

as could get at it stabbed it with their spears with great eagerness, and called it the devil.

Raspberries were in great plenty, white, extremely large, and fine flavoured. Cranberries and several other species of berries we observed, with plenty of ginseng, and some snake-root. The timber comprised a variety of pines of an immense thickness and height; some extremely tough and fibrous, and of these we made our best oars.

The natives wore the same habits as those of Kadiak; they possess the same customs, and the languages differ very little. They had evidently a knowledge of several European words; for if they were not satisfied with returns made in barter for their articles, they exclaimed, *No! no! no! no!* holding their hands for more; and if more was required from them than they inclined to part with, they shook their heads and said, *Plenty, plenty.* They observed the expression of our countenances very minutely; and if they saw any thing resembling anger, they immediately laid down their articles in their boats, held up their hands, and exclaimed, *Amigo, Amigo!* and *La-lee, La-lee!* which they understood to signify friendship and peace. Their instruments differ only in this particular, that many of them are pointed with copper, and one of them had an European bayonet on the end of his spear. They have very large screens; I was told, (but saw none) of sufficient strength and thickness to withstand a musket-ball, and large enough to shelter twenty or thirty men. They have armour of wood, which covers the body of the warrior and his neck; but his arms and legs are exposed. This is made of very neat pieces of wood, about half an inch thick, and near an
inch

inch broad, tied very artfully together with fine threads of the sinews of animals; and so contrived, that they can roll it up or expand it. This they tie round the body, a flap before reaching down their thighs; but so made as to rise or fall, and permit their sitting in baidars: a similar flap hangs on the breast, which may be risen as high as their eyes. Straps fasten this armour on their shoulders, and strings tie it round the body on one side.

The head is well guarded with a wooden helmet; some of these are made to resemble the head of a bear, and cover the face completely. Such wooden caps, or head-pieces, are worn in the chase of the different animals which they represent; the native clothes himself in their skins, and approaches within a convenient distance to use his bow or lance. Some of the natives were presented with copper medals and beads.

Our observations proved the longitude $213^{\circ} 42' 45''$, latitude $60^{\circ} 18' 48''$, at the observatory on shore, about 50 fathom south of the ship at anchor.

CHAP. XV.

Leave Prince William's Sound.—It is resolved to return to Kamtschatka.—Kay's Island.—One of the Aleutes taken on board from Oonalashka makes an attempt on his life.—Extraordinary difference in Longitude between the Time-keeper and the Ship's reckoning.—Short Allowance enforced.—Arrive in the Harbour of St. Peter and St. Paul.

WE remained in this station till the 30th July 1790, at six A. M. when we set sail, having hauled out of the bay with a gentle north-west wind, shaping our course south and south-east. At noon the north extremity of Montague island (called Tſukli by the natives) bore by true compass north-west 40° , distance seven miles. From this point, latitude $60^{\circ} 16'$, longitude $213^{\circ} 3'$, we took our departure. Variation of the compass $28^{\circ} 30'$ east.

In the morning of the 31st July we saw Kay's island, and the detached rock off its south extremity. At $1^{\circ} 26' 47''$ double altitudes made the latitude $59^{\circ} 51' 22''$, when Kay's island bore north-east, distance about eight miles. At four we saw plainly Mount Saint Elias bearing north-east 49° . At five P. M., longitude, by time-keeper, $215^{\circ} 42' 45''$, latitude $59^{\circ} 44' 22''$, variation of the compass 26° east. The weather soon after grew hazy, and we saw no more of the land. The wind shifting to the east and north-east, we kept all the 1st of August a southern course; taking into consideration our small stock of provisions, which precluded

cluded every thought of passing the winter where we could not be sure of procuring a supply ; together with the lateness of the season, and the distance that we had to run back to Kamtschatka ; besides, it was thought necessary to have a second vessel, for security's sake, in so uncertain a navigation, where none of the islands, except Oonalashka, were laid down with any sort of exactness even on the best of charts. Our return, therefore, to Kamtschatka was necessary to forward the business of building the vessel. It was also considered as a principal object of the expedition, to obtain some more perfect information concerning Cook's River, and other rivers and parts of the continent south of it, as well as to survey all the chain of islands between America and Kamtschatka, and ascertain by astronomical observations their true situation. To effect which, the whole of the next summer and winter might be employed, and the summer following appropriated to explore the more northern parts to the utmost extent of possibility.

This was agreed to, and our return determined upon immediately ; intending, however, to stop at Oonalashka for water, and to put on shore the natives who had accompanied us.

I believe that I was the only person on board who felt any regret at the thoughts of returning to Kamtschatka. I really imagined that we should never see this coast again ; and I had now acquired knowledge enough to survey any place, from Mr. Saretshoff's intelligent manner of explaining whatever appeared to me difficult. This, added to a few lessons that I took from Mr. Batakoff, our master, would have enabled me to be pretty exact ; a consideration which made me offer to go on shore alone, and meet Captain Billings the ensuing summer at any part of the coast that he would appoint. The attempt might have been rash : I do not,

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however, think (as I before observed) that one person runs any risk either of starving, or being murdered, but may depend upon sure conveyance from one tribe to another. I do not mean to infer that there was any impropriety in rejecting my offer, for it was regarded as sacrificing myself to no purpose.

Kay's island, the last that we saw to distinguish as such, (the southern point of which most assuredly forms the Cape Saint Elias of Commodore Bering,) is very remarkable. It is of moderate height, except the south extremity, which is considerably elevated above the rest, and terminates very abruptly a barren mountain of a saddle-form and white. A detached rock of the same kind of stone is situated a few fathoms off the point; east of which, at the distance of one mile and a half, are sunken rocks. The other part of the island consists of hills and vallies, apparently well wooded with fine pines. From the southern point, the island trends north 46° east, twelve miles in a strait line, and is two miles and a half across in the widest place. To the west of the northern extremity is another island, with several smaller isles nearer the continent; forming a well sheltered bay over a bar of about seven feet at low water, with a rivulet at its head. The direction of Mount Saint Elias from Kay's island is east north-east. It towers to an immense height, and is covered with snow. Its distance I compute at about 30 leagues.

If I may be allowed to hazard a conjecture of my own concerning the land that we saw, it is, that I do not think any one place, except Mount Saint Elias, constitutes any part of the continent; not even Cape Elizabeth; and I have my doubts of Alaska itself. I think that the whole is formed of a close connected chain of islands, separated by straits from the main land. I ob-

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served no change in the colour of the water, however close in with shore; which must have been the case had any considerable rivers fallen into it; but we saw none, and our enquiries do not justify the supposition that rivers exist, except beyond the straits; for the rivers were spoken of by the natives as lying behind the islands. I could not perceive any alteration in the taste of the water, not even where we were at anchor, and it was exceedingly pellucid.

However, I shall take leave of this coast, and proceed to give an account of our return. No sooner was this resolved upon, than the wind shifted from north-east to west and south-west. We kept a course as much to the west of the south as possible; and on the 4th, at eight P. M. our time-keeper gave the longitude 215° , latitude $56^{\circ} 53'$, variation $27^{\circ} 50'$. On the 6th, we saw several land birds and floating wood, our latitude $55^{\circ} 15'$, longitude $214^{\circ} 15'$, variation $26^{\circ} 10'$ east. We had a brisk gale at south-west, steering south south-west, one half west, the sea running very high, succeeded by calms and variable light airs: all the 9th we had a favourable breeze from the south south-east, with rainy and misty weather. We made a good run west south-west. On the 10th, calms and baffling winds. At $4^{\circ} 10' 25''$ P. M. apparent time, our longitude by time-keeper was $210^{\circ} 9' 15''$, latitude $54^{\circ} 29' 17''$. The ship's reckoning made us one degree more west; but the latitude was within two miles. The difference of longitude increasing every observation induced Captain Billings to doubt the rate of going of the time-piece. On our passage out, the ship's reckoning and our observations agreed so well, that he could not by any other means account for the difference. On the 14th, the amplitude of the setting sun gave the variation $23^{\circ} 12'$ east. The 15th, at nine A. M. longitude

by time-keeper $201^{\circ} 49' 30''$, latitude $54^{\circ} 15' 6''$, by ship's reckoning longitude $200^{\circ} 47'$, latitude $54^{\circ} 11'$. Misty weather prevented our observing again till the 26th August, at $9^{\circ} 10' 45''$ A. M. when the time-keeper gave the longitude $194^{\circ} 21' 15''$, ship's reckoning $190^{\circ} 20'$ east. At noon, our observed latitude was $52^{\circ} 22' 16''$, by ship's reckoning $52^{\circ} 14'$. In the evening of the 26th, we encountered a hard gale of wind from west south-west, and laid-to under fore, main, and mizen sails. The gale continued till the 28th, at five P. M. when, it abating a little, we set our close-reefed top-sails. At noon we got an imperfect view of the sun, which gave the latitude $52^{\circ} 13' 2''$, variable light airs, cloudy: at times rain. Supposing ourselves about the meridian of Oonalashka, having but a scanty supply of water on board, and the natives wishing to be at home, we stood to the north for this island, with rainy and foggy weather, which grew so thick that we could not see half a mile a-head; and reaching the latitude of $52^{\circ} 59'$ by account, without seeing land, at the same time a brisk gale springing up from the south by east, it was resolved upon to prosecute our voyage to Kamtschatka, and keep the natives till the next spring. The use of fresh water was now prohibited, except where absolutely necessary: foggy, misty, and rainy weather continued. The 30th, at six P. M. we thought we saw land west north-west, but the fog hid it before we could possibly ascertain whether it was so or not: however, we stood away to south all night. Our latitude was by account 53° , longitude $191^{\circ} 25'$.

On Sunday, the 1st of September, we had a brisk gale from the west north-west, steering south-west. During the night, and particularly this morning at eight o'clock, the sea running very high, and the ship in great motion, we experienced a violent shaking and trembling of the vessel, as if her keel were rubbing
against

against an uneven bottom; it lasted several seconds, and we supposed it to have been caused by an earthquake. At noon the altitude $41^{\circ} 2' 30''$, proved our latitude $52^{\circ} 59' 46''$, which, by our ship's reckoning, was only $52^{\circ} 23'$. The 3d, at $8^{\circ} 35' 25''$ A. M. our time-keeper gave the longitude $195^{\circ} 10'$, latitude $51^{\circ} 10' 33''$; our reckoning, longitude $189^{\circ} 50'$, latitude $51^{\circ} 29'$. At noon, our observed latitude was $51^{\circ} 9' 33''$.

Notwithstanding Captain Billings doubted very much the regularity of his time-keeper, he never missed an opportunity of ascertaining the longitude with it; yet he placed the greater confidence in the ship's reckoning. I was quite of a contrary opinion, confirmed by the difference existing in the reckoning of Commodore Bering in 1741, which was near 12 degrees ahead of Bering's island at the time when the ship was wrecked upon it. The 4th September, at noon, a sudden squall carried away our fore-mast a little below the cap; the top-mast, in falling, also broke. The wind was so heavy, as to bring our ship's lee-gunwale under water; but on the mast's breaking she righted; a hard gale from the west immediately followed, and we brought-to under mizen and main-sail till seven o'clock the next morning. At $8^{\circ} 44' 15''$, our longitude by time-keeper was $192^{\circ} 44'$, latitude $50^{\circ} 36' 7''$, variation $17^{\circ} 35'$ east, making a difference of the ship's reckoned longitude of five degrees. She being so much a-head, which, of course, induced us to keep a sharp look-out, and use the greatest caution, contrary winds continuing, we could make but little way by plying to windward. The 10th September, in latitude $49^{\circ} 9'$, and longitude by time-keeper $186^{\circ} 40'$, we saw great flocks of birds flying to the south.

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The 14th and 15th we had hard gales of wind west and west north-west, and rainy weather; the 16th in the morning we got a sight of the sun; our time-keeper gave the longitude $181^{\circ} 24' 30''$, latitude $49^{\circ} 1' 48''$, making a difference in our ship's reckoning of seven degrees in longitude, and ten miles in latitude. During the 24 hours we saw several indications of land being near; as weeds, birds, &c. The 17th, calms and baffling winds, with misty weather: a fresh easterly breeze succeeded for about 20 hours; our longitude in the morning of the 18th was, by time-keeper, $179^{\circ} 22'$, latitude $48^{\circ} 30'$; the Bay of Avatsha bearing north $65^{\circ} 35'$ west, distance 655 miles. We were now without bread, and had but very little water; so that we shortened the ration of the latter, and gave a sufficient allowance of pease and butter, all hands voluntarily rejecting salt meat. A hard gale from the west brought us to under mizen and main-sail for 24 hours.

The 21st September, at nine A. M., we obtained some distances of the sun and moon, which gave the longitude $178^{\circ} 46' 45''$. At noon our latitude observed was $49^{\circ} 12' 35''$, which differed nearly eight degrees from our ship's reckoning: however, both were kept in the Captain's journal, and our situation was very uncertain. The 23d, one of the Aleutes taken on board at Oonalashka cut his throat; but not so effectually as to cause his immediate death: his companions said, it was owing to his extreme grief on hearing that he must go to Kamtschatka. Hard gales of wind continued from the west, with hazy and misty weather, till the 24th in the morning, when we had calms and variable light airs. At six this morning we saw land bearing north and west, and a conical mountain to the north-west, distant about 15 leagues, which I supposed to be the eastern point

point of Amtshitka. At eight A. M. our longitude was, by time-keeper, $180^{\circ} 44' 45''$, latitude $50^{\circ} 50' 10''$. The 25th we saw an island, and the same island the 26th; for scant winds prevented our making much head-way. The land that we saw on the 24th May, on our outward passage, was so strongly impressed on my mind, that I had no doubt of its being the very same that we now saw; namely, the island of Amtshitka above mentioned. At that time our longitude, by dead reckoning, was $179^{\circ} 00'$, and our latitude $51^{\circ} 18'$. Our observed longitude, by time-keeper, was, the 25th September, $179^{\circ} 11' 45''$, latitude $50^{\circ} 49'$; but the haze made the land appear much nearer than it was; and the fog, hiding it, prevented our ascertaining its distance by correspondent bearings.

The ship's reckoning still differing so materially from that of the time-keeper, induced Captain Billings to reject this method of ascertaining the longitude; but he continued occasionally to take the sun's altitude, without making any minutes in the journal; doubting every observation, except the meridian altitude for the latitude. His uncertainty naturally increased that of others. To elucidate this observation, I shall take the liberty of translating, from the journal of one of our officers, his remark on the land seen the 25th. "Saw land, which suppose either Copper or Bering's island." I shall leave my readers to form their own conjectures. We were now at very short allowance of water; and the opinion of all hands on board was taken, whether we should seek anchorage, and take in a fresh supply. The misfortunes of Captain Bering in 1741 were so strong in the minds of all the sailors, that they declared they would rather risk starving on board than attempt to land on this island.

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We continued a north-west course till the 3d October at noon, when our observed latitude was $52^{\circ} 16' 14''$. By our reckoning, we had passed Sheponskoi Nofs 50 miles, and were only 40 miles from the Bay of Avatsha from our bearings by Captain Cook's chart. The 5th October we got an observation of the sun and moon's distance, at $3^{\circ} 32' 21''$ apparent time; which made the longitude $167^{\circ} 12' 22''$, latitude $52^{\circ} 57'$; by our reckoning, we were in longitude 157° , nearly across the land of Kamtschatka.

October the 10th, at noon, the haze clearing a little, discovered over our starboard-quarter Sheponskoi Nofs, north-east 22° , distance 20 miles; latitude observed, $52^{\circ} 52' 34''$; and shortly after we saw the mouth of the Bay of Avatsha; but contrary winds and calms prevented our getting into the harbour of St. Peter and St. Paul till the morning of the 14th, at which time numbers of our crew were infected with the scurvy; but all perfectly recovered after they had been a few days on shore. Our Doctor's journal contained the following remarks: "It was only towards
" the end of the voyage, when our bread was out, and we were
" reduced to a short allowance of water, that the scurvy made its
" appearance. At this time pease and grits boiled to a thick consistency in a small quantity of water, and buttered, were substituted for salted provisions. The symptoms were, costiveness, a breaking out, with itching, bleeding of the gums and nose, pains in the legs, and some were swollen. Upon our arrival, numbers had pains in their joints, with extreme lassitude, flushing heat, dry cough, and an oppression of the breast: bleeding sparingly, thin drink, and fresh fish, restored all hands in a very short time.

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“ The men employed in filling the water casks at Oonalashka
“ got cramps in their feet and legs, flushing heat and violent
“ head-ache, which was cured by administering sudorifics.”

I think this arose solely from the carelessness of the men, in going with wet feet. The water was a collection of melted snow, very cold. The weather hazy and damp. At nights, 2, 3, and 4° above the freezing point, and at noon only 6, 7, and 8°.

We joined here the rest of our company, who arrived during the summer from Ochotsk all in good health.

I fear that my account of our return from the coast of America will have seemed tiresome to some of my readers ; although I have been as concise as possible. One remark, at least, I think it necessary to make ; namely, that I am neither sailor nor astronomer ; nor knew aught of either of the sciences until I embarked on the expedition.

CHAP. XVI.

Mr. Pribuloff appointed to the Sturman's place, vacant by the Death of Mr. Bronnikoff; he goes in search of an Island.—Discovers one which he names St. George's Island, and another, to which he gives the name of St. Paul's.—Arrival and generous Behaviour of an Enemy's Ship, the Mercury, Captain Coxe; and the Astonishment of the Russian Settlers.—The Russian Secretary put in Irons and sent to Irkutsk, on suspicion of improper Correspondence.—Leave St. Peter and St. Paul.—Reach Bering's Island, and narrowly escape a Rocky Point.—Copper Island.—The Islands of Attoo and Agatto.—Semitsh.—Buldyr.—Kyska.—A Cluster of Islands.—Dress and Amusements of the Inhabitants.—Two Natives of these Islands, who had been Attendants on Captain Billings, put on shore.—Leave Tanaga, and after passing several Clusters of Mountainous Islands, arrive at Oonalasbka.

OUR first business was, to unload and lay up our ship for the winter; then to dispatch our ship-builder with necessary hands to Neizhni, Kamtschatka, to build a consort for the Slava Russie, to accompany our next year's adventures.

The materials for this purpose arrived with the transport vessel from Ochotsk. The vacant sturman's place, occasioned by the death of Mr. Bronnikoff at Ochotsk, was supplied by Mr. Pribuloff, who accompanied a trader's vessel three years back on the part of Government to collect tribute. At the same time he took charge

charge of the vessel as commander, on the part of the trading company; for which he received a share in the profits of the voyage. He made Oonalashka, and from his former observations that numbers of sea animals, particularly young kotic, came from the north in the autumn, at the commencement of severe weather, he had formed a conjecture, that some unknown island lay at no great distance in that direction; and therefore resolved, without losing time, to take on board as many islanders as he could obtain, with their small canoes and arms, and be convinced of the certainty or uncertainty of his supposition.

Twenty-four hours after his departure from the island of Oonalashka, he discovered land. The southern and western parts are surrounded by rocks; but the north is easy of approach, and affords good anchorage in a commodious bay for small vessels, not drawing above eight or nine feet water. The whole island is volcanic, destitute of inhabitants, and only produces the bulbs, plants, and berries, which are to be met with on all the Aleutan islands. They found the low lands and the surrounding rocks covered with sea animals, particularly the ursine seal (kotic), and sea-lion (sivutsha); and with the skins of these animals they nearly loaded their vessel. Pribuloff called this St. George's Island; and observing another island to the north, at the distance of 44 miles, he went thither in a large baidar, accompanied by a number of Aleutes. This island is much smaller than that of St. George, and he named it St. Paul's: this, as well as the former, was the retreat of immense herds of seals. On the island of St. George they passed the winter, and found the inland parts overrun with foxes, which afforded them a profitable chase. It also abounded with the tusks of the walrofs, which they picked up on the shores.

Last autumn he returned to Oonalashka, where he passed the winter. A European vessel put into the bay of Udagha, which Mr. Pribuloff visited: it was the Mercury, Captain Coxe, copper-bottomed, and mounting sixteen guns. From this vessel, which he said had only two masts, he received intelligence of the war between Russia and Sweden. The Captain was inquisitive about the Russian establishments, their force, and shipping: to explain which, Pribuloff took the Captain and his officers to their habitations, but could not treat them with any thing except saranna, berries, the dried meat of the sea-lion, and fish, without bread. They expressed astonishment at every thing they saw, but most at their manner of living, &c. On their return to their own ship, they sent Pribuloff a supply of bread, brandy, and other necessaries, some articles of dress, and a quadrant, as presents; and a few days after left the island.

Nothing in the world can astonish a Russian more than disinterested liberality, or any kindness without some prospect of future benefit. Greatness of soul is applied to every man who is just, and grants his servants some few indulgences; every thing beyond this is called folly, and is sure to be imposed upon: nor have they any sentiment of feeling, except it be excited by blows. Taking this for the ruling character of the Russian hunters, it will be easy to conceive the astonishment of Pribuloff and his companions at the liberality of Mr. Coxe: but how much was their amazement increased, when, on their returning to Ochotsk, they were informed, that this very Captain commanded an enemy's ship, and actually had a Swedish commission to destroy the Russian establishments! They could not imagine what inducement he could have to shew them any mercy, much less to heap kindnesses

nesses upon them. Pribuloff himself said, "They had every thing, " and saw that we had nothing worth their taking; therefore " they made us presents; for they were ashamed to be enemies " to such poor wretches *."

I am inclined to think that his conjectures were just; and I feel myself interested in relating this anecdote, which, in my opinion, does so much credit to an European sailor, of whatever nation he may be.

Nothing material happened this winter, the greatest part of which we passed at Bolshoietsk, receiving frequent intelligence of the progress at Neizhni under the direction of Captain Hall, who acquainted us that his vessel would be ready to put to sea as soon as the river Kamtschatka should be free of ice. One circumstance, however, I think it necessary to mention. The Russian secretary, Vassiley Diakonoff, having given dissatisfaction to Captain Billings, and being thought to have entered into a private correspondence with Mr. Shelikoff, and disclosed some secrets of the expedition, was put in irons and sent to Irkutsk, to answer for his conduct on the return of the expedition.

I forbear making any comment upon this business, or giving any particular account of Kamtschatka, until I take my final departure from it.

* The liberality with which the Expedition under Captain Cook treated the natives of every place they touched at, infused into their minds an astonishing idea of the wealth and profusion of the nation from whence they came: this, therefore, was a very natural conclusion of Pribuloff.

Coreilin was the commander of the hunting parties on shore; and he also received several presents from the Mercury.

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We passed the winter in excursions of pleasure, and in dancing and card parties, chiefly at Bolshoi-retsk, where the luxuries of life are more plentiful than in the harbour of St. Peter and St. Paul. The frost was sometimes very severe, and we had for a few hours 21° below the freezing point of Reaumur. Two or three earthquakes happened about the neighbourhood of Neizhni; but, except a slight shock on the 21st November at noon, none of them reached the harbour of St. Peter and St. Paul.

In the beginning of the month of April 1791, all hands repaired to the harbour. Instructions were sent to Captain Hall (to whom the command of the second vessel was allotted as senior officer), to be at Bering's island by the 25th May; and if he did not find us, to wait till the 30th: we also were to wait till the 30th for his vessel, if we arrived earlier. In case we should not meet there at all, the second place of rendezvous was appointed at Oonalashka.

We took in a good supply of water, rolling the casks over the ice of the harbour to the ship. We also took a greater quantity of provisions than in the preceding voyage; though the salted meat was less nourishing, having lain so much longer in the casks. The different messes took a good stock of dried and pickled salmon, berries, wild onions, &c.

By the 1st of May the bay of Avatska was clear of ice, and not before, owing to the severity of the winter: but the inner harbour of St. Peter and St. Paul remained frozen up.

On the 8th, we broke the ice of the harbour to make a passage for the ship, and hauled her into the bay. The thermometer stood at 2° to 4° of heat, the wind blowing right against us till the 13th, when it fell calm. We now took the smithy and all hands on board, and hauled off the battery point. Baffling light airs detained us till Friday the 16th, at four o'clock in the morning, when we weighed anchor with a gentle breeze from the north, and saluted the battery with seven guns, which was returned with an equal number. The wind falling scant, and shifting to south-west, with a contrary current, we made but little headway, and cast anchor at four P. M. in the mouth of the bay, the lighthouse bearing north-east 86° , distant about one mile. The next morning a moderate breeze sprung up from the east, which brought with it a very thick fog. The tide setting against us to the west, at three knots and a half, our ship drove unobserved, and we discovered that we had a flat stone bottom at twelve fathom. We drove very near the south-west rocky shore, sent a kedge to the north-east into good anchorage, weighed anchor, and hauled a-head. At ten A. M. a gentle breeze springing up from south, we took in our kedge, and stood about two knots north north-west, when, coming to a good bottom, we brought up with our best bower. At noon we observed the latitude $52^{\circ} 55' 32''$.

All the 18th we had variable light airs, with cloudy and hazy weather. The Kamtschadals that were out among the rocky islands, seeking eggs, brought us a very considerable supply, as also of sea-fowl.

Monday, the 19th May, we weighed anchor at four A. M. with a gentle west south-west breeze, stood out of the bay of Avatsha,

Avatsha, and hoisted our boats on board, going east by north at three knots. At noon, our bearings were Povorotnoi Muis (Cook's Cape Gaveria), south-west $23^{\circ} 30'$; Villuitsheskoi Peak (Paratounka Sopka) south-west 72° ; lighthouse, by true compass, north-west $58^{\circ} 23'$, distant seven miles and a half; latitude of ship's place observed $52^{\circ} 49'$, longitude $158^{\circ} 56'$, variation one half point east, from whence we took our departure, and continued our course all day.

On the 20th we saw immense numbers of grampusses, porpoises, and many whales. We had a fresh gale from the north, hauled the wind, and kept a course east north-east, under close-reefed top-sails. In the afternoon, moderate wind. The 21st, at noon, latitude $53^{\circ} 9'$, longitude $161^{\circ} 39'$. Sheponskoi Cape bore due west, distant about fifteen leagues. I make this cape in latitude $53^{\circ} 9'$, longitude $160^{\circ} 3'$, variation three-fourths of a point east. Variable light winds, and calms, prevented our making much head-way till Saturday the 24th; when, early in the morning, a breeze sprung up from the south-west, and we sailed north at the rate of six knots. At noon our observed latitude was $54^{\circ} 14'$, corrected longitude $162^{\circ} 30'$. The eastern extremity of Kronotskoi Cape bore north $2^{\circ} 30'$ west. In the evening the breeze died away, and calms and light airs followed till the morning of the 27th, when we had a gentle breeze from the west south-west. At noon our latitude observed was $54^{\circ} 45' 22''$, longitude $165^{\circ} 36'$. At three P. M. saw Bering's island, the south-west point of which bore north-east, the south-east extremity north-east 73° . At eight P. M. the wind freshened, with hazy weather, and squally; the land was about four miles to leeward, and a detached rock off the north-west extremity a-head of us. Mr. Bakoff, who had the watch, first discovered the dangerous
6 situation;

situation; and it was owing to his presence of mind, in immediately crouding all the sail the ship could carry, that we weathered this rock, at not the ship's length from it, carrying her gunwale nearly under water. Having cleared this point at eleven P. M. we stood away more large, with very hazy weather.

This island's south extremity bears by true compass from the harbour of St. Peter and St. Paul north-east 67° , its distance 192 miles, trending north-west 35° , forty miles. The west side of the island is mountainous, and covered with snow; the summits were hid in the haze and fog. The north point is low land, free of snow. Here are two bays where merchants' galliots winter; but they are shoal, dangerous of approach, and exposed to the north winds. A small rivulet runs into each of them, in which transparent white pebbles are found; and sometimes, after a hard gale of wind from the north, small pieces of native copper are cast on the shores. The north point is in latitude $55^{\circ} 25'$, longitude $166^{\circ} 15'$.

The 28th, at noon, our latitude was $55^{\circ} 14' 23''$, corrected longitude $166^{\circ} 50'$. At two P. M. the sun and moon's distance gave the longitude $166^{\circ} 52' 45''$, which perfectly agreed with our ship's reckoning: variation one point east. The wind blowing fresh from the south-west, we could not attempt to enter the bay to seek for the second vessel; and it was resolved to prosecute our voyage to Oonalashka.

The 29th, at three o'clock in the morning, being very foggy, we saw Copper island astern of us; so that we must have passed it very close indeed. Our course was east south-east, the wind

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blowing

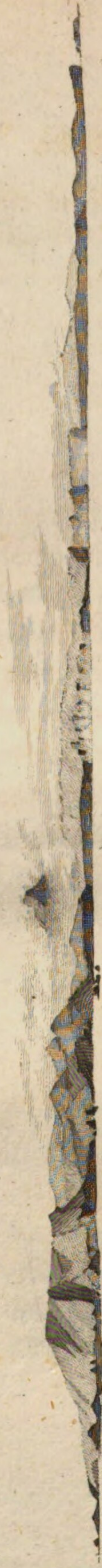
blowing fresh from the south-west. Owing to thick weather, we could only observe that Copper island is mountainous, bearing from Bering's island's south point north-east 65° , distant 27 miles, trending south-east 61° , twenty-five miles: rocks between the islands, and off their northern extremities. At five P. M. the sun and moon's distance proved our longitude $169^{\circ} 0' 15''$, latitude $54^{\circ} 14'$. In the evening the wind died away.

The 30th, our latitude at noon was $53^{\circ} 43'$, longitude $170^{\circ} 12'$. At seven P. M. we saw land, a lofty mountain covered with snow, south-east 30° , which was soon hid by the haze and darkness of the night. Light airs all night and the next day, with a considerable swell from the south. Hazy weather prevented our seeing the land again till Wednesday the 4th June at three A. M. when the west extremity of Attoo bore north, distant 13 miles, and the eastern point north-east 72° . Going east north-east at two knots, with little wind from the west-north-west, at noon latitude by account $52^{\circ} 32'$, longitude $172^{\circ} 15'$, variation one and one-fourth point east. At four P. M. the west of Attoo bore north-west $31^{\circ} 30'$, Agattoo's north-west point, north-east 60° . We threw the ship in the wind, and got soundings with 75 fathoms, stony bottom.

The island of Attoo is mountainous and covered with snow. Its western end bears by true compass from the south of Bering's island south 61° east, 215 miles distant: its direction east and west about 60 miles. Detached rocks are off the west point; and its south side has several openings appearing like coves, but exposed to the south. From the east of Attoo to the west of Agattoo the distance is 20 miles south-east one-fourth east, trending
ing



The Island Attoo bearing North distance 13 Miles.



The Island Agattoo bearing NE.



The Island Bulghr bearing North distant 8 Miles.



The South east side of the Island Kyska.

ing east about 16 miles. Here also appear some openings, but the entrances are barred by a reef of rocks. The west extremity is low land gradually ascending. Eight miles from the point is a very lofty mountain, the top of which was hid in the clouds, as was also the higher land towards the east. Ten miles north is the little island of Semish, and off the eastern point is a still smaller island.

We kept an easterly course; and at noon of the 5th our observed latitude was $52^{\circ} 10' 25''$, corrected longitude $174^{\circ} 17'$, with a very hazy horizon. At two P. M. we saw Buldyr, north-east by north one-half east: shortly after we had rainy and thick weather. Buldyr bears by true compass from the island of Agat-too north-east 88° , distant 70 miles. This is an oval rock, very lofty, six miles from north to south, and four miles across. Off the east and west points are detached rocks, to the west they extend to a considerable distance.

The 6th, at three o'clock in the morning, we saw the island of Kyska to the south-east, a detached rock south-east 64° , and shaped our course through the straits, to get to the north of the islands.

These straits are 64 miles wide. The north point of Kyska bears east from the south point of Buldyr; its direction south by east, and extent 26 miles, terminating in a point of moderate height, and 20 miles across in the widest part: there is some low land about the east extremity, and it contains many rocks. At noon our latitude by account was $52^{\circ} 23' 20''$, longitude 177° , when we rose a cluster of islands; the most western of which

is called Sigoola, 14 miles east of Kyska. This is nearly round, and nine miles in circumference. Krifsey island is about an equal distance from Kyska to the south-east, small and rocky. The island of Amtshitka lies about eight miles east north-east of Krifsey, and trends east nearly 60 miles in extent. It has an exposed bay to the south; the north side is accessible for boats; but the cluster of islands on this side render its approach by vessels impossible. Off its eastern extremity, due north, at the distance of 28 miles, is the island Semi Sopesnoi, or Seven Peaks, trending east and west 22 miles. The fog, however, soon hid these islands from our sight.

Thick weather prevented our seeing land till the 9th, when, at noon, the sun broke through the haze, and we suddenly saw the land over the starboard fore-yard arm, appearing close to the ship: a tremendous barren mountain streaked with snow immediately discovered its base, bearing from north-east 62° to south-east 46° , distant in the nearest place about half a mile (but no soundings with 100 fathom line); a perpendicular rock. The sun's altitude in the haze was $61^{\circ} 10'$, which gave the latitude $52^{\circ} 5' 21''$; by ship's reckoning $52^{\circ} 6'$; longitude $180^{\circ} 22'$; variation one point and a half east. The wind blew pretty fresh from the north; and, as it was impossible to weather its point, we shaped our course south-east by south. At first we took the rock for the Volcano Goreloi; but soon discovered it to be the north-west extremity of Tanaga, which is formed by an uneven-topped volcano, appearing like a cluster of mountains. One terminates in a conical point, of extreme height, emitting sometimes a column of smoke. They are all covered with snow, which descends in ridges to below the middle of the mountain, but much darkened

darkened by the quantity of ashes upon it. This mountain occupies a space of eight miles south, and six miles east by north. South south-west eight miles from the north-west extremity of the island, the high land terminates by a projecting rocky cape, sharpened by several detached needle rocks, behind which we thought there might be good anchorage. Captain Saretsheff volunteered to explore, and went in the evening in the long-boat with this intent. We stood off and on to wait his return; a thick fog, however, fell upon us, which continued till the next day at noon. During this time we very frequently experienced strong rippling tides in various directions, but chiefly south and south-east. Our distance was about one mile from shore, and we saw the long-boat pulling on board, which soon arrived. Mr. Saretsheff found pretty good anchorage six miles south south-west behind the needle rocks; our observed latitude at noon was $51^{\circ} 56' 3''$, one mile east of the nearest land. It falling calm, we towed into the bay, and came to anchor at six P. M.; Goreloi Volcano bore west north-west, distant 22 miles. In the fog yesterday we must have passed this mountain very close indeed. We did not see the top of this volcano on account of the clouds resting upon it; but the shores are very steep, and there is no access, except in very calm weather, on the south-west part for boats; its bearing from Krifley island south 81° east, distant 107 miles, six miles from north to south, and three miles from east to west. I have described the north-west part of Tanaga to the spiral rocks trending south south-west eight miles; these rocks form the north bounds of a small basin, in which we came to anchor in latitude $51^{\circ} 52'$, and longitude $180^{\circ} 25'$. It is about two miles and a half in circumference, with a sandy bottom seven fathom; and, at the head of the inlet, is a very convenient watering-place; it is, however, exposed to the north-west winds.

From

From this place the land trends west by south eight miles, low and very verdant; terminating in a sandy cape, from whence the island stretches away south by west 15 miles; all, except the north, is low land, with fresh water lakes; but interspersed with some rising grounds, near which are the desolated dwellings of the former inhabitants. We found the earthen habitations in one place contain about 20 women, and only a few men, either old or very infirm, which constitutes the present population of the island, exclusive of a few children. The male inhabitants had been taken by Luchanin's company of hunters to assist them in the chase; and what induced the remainder to suppose that it was not the intention of Luchanin that they should ever return, but form an establishment perhaps on the coast of America (which they call Kanaiski Land), was, that he had also taken as many women with him as he could possibly stow away in his galliot. We learnt, however, from these remaining inhabitants, that their companions did not go voluntarily. This island was formerly very well inhabited; but the Russians have almost depopulated it, which is completely the case with those to the west.

The inhabitants dress exactly like those at Oonalashka; but the women have not so many ornaments. They speak different dialects of the same language as at the above-mentioned island. Their dances and diversions, however, seem different. They are more graceful in their motion, extremely modest in all their actions; and quite unlike all other savages that I have seen, by being free from lasciviousness. Young men amuse themselves with jumping on the skin of a large sea-lion, held in the air by four or six men. They leap and lighten upon their feet, and by degrees are thrown up to an immense height: when they are tired they leap off upon the ground. I attempted to leap in this manner,

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but

but could not succeed; for the sudden jerk either caused my knees to bend, or else threw me out of the centre; and they explained the cause by telling me, that I looked upon the skin, whereas I ought to keep my body erect, and look upwards; at the same time I should not leap, but let the men throw me up. Their boats are larger and more heavy than those of Oonalashka, though made upon the same principle.

We had on board three natives of this and the neighbouring island of Kanaga, taken from hence in the year 1785 by Gregory Shelikoff, of whose behaviour upon these islands we received very unfavourable accounts. Two of them had been the attendants of Captain Billings from the time of his first arrival at Ochotsk in 1786; and now embarked with a view of being left at their native habitations; to which, notwithstanding the desolation that they beheld, they flew with satisfaction; (a strong proof of the attachment of mankind to the country where they have passed the years of innocence and happiness!) content in the possession of a piece of paper which exempted them from the slavish demands of the Russians * (in case they choose to pay any attention to it). Thus rewarded, with the addition of a few articles of dress, the free gift of different officers on board, and with a very small quantity of tobacco, they were put on shore.

This was not quite the stile in which Omai was returned to his family and friends by Captain Cook; for all the wealth that these possessed between them could not create envy among their brethren; nor could all the accomplishments which they had ac-

* I hope that my readers will not confound the character of these desperate exiles with the general character of the Russians, who are kind and hospitable to an excess.

quired,

quired, during a six year's service in constant employment with the utmost diligence and fidelity *, prove any recommendation to their relatives, or qualify them to obtain their living by the productions of the chase; for only one of them was capable of rowing in their small baidars, and I believe that only in smooth water. I cannot see any other means of their supporting themselves than by digging the edible roots, and obtaining the shell-fish with which the sandy shores abound, particularly cockles of an extraordinary size.

The rocks have also a variety of muscles, and several species of limpets that adhere to them just at low water mark; a particular species in great abundance called by the Russian hunters baidars, from the great resemblance which they bear to their open boats, with a row of jointed shells along the centre of the back; these are devoured by the natives both raw and dressed, and I thought them very good eating; the largest were about three inches long, and one inch broad, very fleshy and firm. Whales are frequently cast ashore upon the sandy point of this island, and afford food and light for a considerable time.

One species of whale is frequently cast on shore both on these islands and on the coast of Kamtschatka, which the natives never eat, but only use the fat to burn. They know no difference in its appearance; but observe that neither gulls, nor any bird of prey, or fox, will eat of it. They say, that the Russian hunters

* One of these lads attended Mr. Main and me at the time we were at the Kovima. Main asked him, what the savages would do should he (Main) fall into their hands? The boy replied: "Sir, you shall never fall into their hands if I am with you; for I do always carry a sharp knife about me; and when I see that there is no possibility of your escaping, I will stab you to the heart, and then they will not meddle with you."

have

have used it for food; that its fat turns in the stomach to an oil of so subtile a nature, as to pass through all the pores of the body, while the fleshy parts are emitted in an undigested state; and that if those who have eaten it have formerly had wounds or ulcers, although these have been cured for years, they break out afresh. Several of the hunters told me, that they had eaten of this whale, and that the account which the natives gave of the subtileness of the fat, and the undigested state in which the more substantial parts passed through them, was true; and that some of their companions, who had been cured of the venereal distemper, became again violently affected with that dismal disease, merely from this food. The same property, however, is attributed to the flesh of whales in general.

This was the only island on which we observed the eider-duck; and it was about the lakes here in great plenty. The dresses made of their skins are esteemed the best of all the feathered tribe, being more soft, warm, and strong, than any others.

We remained at anchor till Sunday the 15th, and the whole time experienced hazy and misty weather, which prevented our seeing the small rocky islands to the west, which were formerly the places of resort of the sea-otter and other marine animals, now nearly extirpated, or entirely driven from these parts. At three P. M. we got under weigh, with a gentle breeze from the south-east, and stood away west north-west to double the north cape of the island; but, the wind being scant and shifting to the north-east by east at six P. M., we kept working to windward all the 16th.

The 17th, still plying, at noon our observed latitude was $52^{\circ} 7' 55''$. We made the island of Kanaga seven miles distant from that of Tanaga, and saw the smoke ascending from the hot spring at the foot of an extinguished volcano on the island of Kanaga, off which at 12 miles we also observed the small island called Bobrovoi, from the number of sea-otters that formerly held their resting-place upon it.

The wind still continuing from the north-east quarter, with very thick weather, which prevented our discovering the leeward islands, we resolved upon passing the straits west of Tanaga, where we stood at anchor to get to the south of the islands. At three A. M. of the 18th, we stood south-west by south, with a gentle breeze from north-east by north, which freshened by noon to a brisk gale. The weather was hazy; our latitude by account $51^{\circ} 48' 5''$, the body of Goreloi Peak bearing south-west 72° , when we rose the low island of Illuk south-west 6° , distant from the low south-west extremity of Tanaga 12 miles. We shortly after saw the rocky islands between Illuk and Goreloi. The 19th, easterly squalls and thick weather, with flying clouds at noon, when we got a sight of the sun; and the latitude observed was $51^{\circ} 27' 20''$, corrected longitude $181^{\circ} 29'$, variation of the compass one point and a half east. Afternoon rainy with a hard gale. At five P. M. it brought us under our courses close hauled on the starboard tack.

The 20th, at noon, having moderate wind from the south, set close-reefed topails, and stood away east by north, latitude by account $51^{\circ} 2'$, hazy weather, and no land seen. The 21st, at noon, observed latitude $51^{\circ} 4' 57''$, corrected longitude $182^{\circ} 22'$. At

five

five P. M. saw the island Adach; its western low extremity north-west 15° . At seven, having made the last two hours seven knots and a half north north-east, the low extremity of Adach bore north-west 39° , distant 17 miles, and we rose another island north north-west, when the haze hid all land until Sunday the 22d, at seven A. M. when we saw mountains, and at eight found ourselves near a cluster of fifteen small islands, mountainous and of various forms. At noon our latitude observed was $51^{\circ} 58' 38''$, corrected longitude $184^{\circ} 48'$. We were now sailing with a moderate breeze from the south to the north-east, at the rate of six and seven knots through the straits formed by the cluster of mountainous islands before mentioned; some of them not half a mile off (soundings from 30 to 50 fathoms, shells and coral); the largest, Gorelloi island (not Peak), north-west 57° . My memoranda, taken from the original log, not being here very distinct, I am unable to give the exact bearings and distances of these islands. We passed the north point of Alcha, however, about four miles from the land, when we were surrounded by a thick fog.

The 23d, at noon, our latitude by account $53^{\circ} 4'$, longitude $187^{\circ} 48'$, we allowed variation one point and three quarters east; very foggy all day. Continued our course north-east half east 24 hours, until Tuesday the 24th at noon, when our distance run proved 128 miles north east $80^{\circ} 24'$, making our latitude $53^{\circ} 27'$, longitude $191^{\circ} 28'$, rainy, misty, and foggy weather, which prevented our seeing land till half past one, when we suddenly saw land south-east, about two miles and a half distant, which was known to be a promontory on Oomnak; upon which we shaped our course north-east. At five P. M. we rose the north-west extremity of Oonalashka, south-east 85° . At nine P. M. passed the

remarkable rock, resembling a ship under sail, in the middle of the straits, between Oomnak and Oonalashka, and opened Tishernefski bay south-east 16° . Upon seeing land ahead, hauled the wind and stood away north. At ten P. M. being about three miles from the shore of Oonalashka, we sent the baidar to examine the coast, which was hid from our sight in the haze, and stood off-and-on all night. The next morning, Wednesday, the 25th June, at four A. M. with a gentle breeze from the west, being well in with the land, several natives came on board, under whose pilotage we stood into the bay of Amoknak; and at three P. M. came to anchor in the basin of Illuluk, about 20 fathom from the dwellings that bear this name, and shortly after sent the observatory on shore.

Captain Hall was not yet arrived: a circumstance rather unaccountable to us, except on the supposition that he could not get so soon ready to leave Kamtschatka as he expected.

CHAP. XVII.

Captain Billings abandons all thought of re-visiting the American Coast to the south of Cook's River, and prepares to sail for the Bay of St. Laurence.—Reflections of the Author.—Sail for the Bay of St. Laurence.—The Islands of St. George and St. Paul.—Gore's Island, &c.—Captain Billings, &c. land on the Continent of America; of which visit some Particulars are given from the Memoranda of a Gentleman in the Party.—Come to anchor in the Bay of St. Laurence.

CAPTAIN BILLINGS now declared, that he was resolved to abandon every idea of revisiting the American coast to the south of Cook's River; but determined to proceed (so soon as he had taken in a fresh supply of water, landed provision for the vessel under the command of Captain Hall, and taken on board ballast in its stead) direct to the Bay of St. Laurence, in the land of the Tshutski, where two petty officers, Dauerkin and Kobeleff, sent from Ochotsk, in 1789, had orders to wait our arrival; and, in case Captain Hall should not arrive in the mean time, orders were to be left with Mr. Allegretti (his surgeon), Ivan Alexeeff (an ensign), and one sailor, who were to remain on shore to guard the provision, that he should immediately follow us to the above-mentioned Bay of St. Laurence, where Captain Billings meant to land, without even attempting to see how far he might be able to pass through Bering's Straits; asserting, that the season was too far advanced, and that he should have an opportunity of ascertaining every thing necessary by land.

Nothing

Nothing in the world could have afforded me less satisfaction than this resolution, which I regarded as the conclusion of an expedition that was set on foot with unbounded liberality by the most magnanimous sovereign in the world ; which had raised the expectation of all nations to the highest pitch, and induced mankind to anticipate the satisfaction of obtaining the most complete knowledge of the geography of this unknown part of the globe, together with a conviction of the existence or non-existence of a north-west passage. But, alas ! after so many years of danger and fatigue ; after putting the government to such an extraordinary expence ; after having advanced so far in the attempt, even at the very time when we were in hourly expectation of our comfort, and, as appeared to me, being just entering upon the grand part of the undertaking, thus to abandon it, was the most unaccountable and unjustifiable of actions.

I despaired of seeing Captain Hall again, at least until our return to Kamtschatka, or perhaps St. Petersburg, unless we should be so fortunate as to join company before leaving this island, which might, perhaps, alter the present plan, and lead us to pursue the real object of the expedition.

The remonstrances of Captain Saretshoff at the Kovima, on the Icy Sea, &c. &c. and in fact the representations of every officer who had hitherto presumed to have an opinion, were always treated by the Commander with petulant and illiberal retorts. I have, indeed, had too frequent opportunities of observing, that rank and power intoxicate the possessor, unless they have been the reward of real merit, or the consequences of seniority in actual service ; in which cases, the value of authority is known, as wealth gained by labour,

and not used as the accidental and unexpected inheritance of a prodigal.

Excepting Captain Billings, Mr. Saretshoff was the only naval officer on board; and I can affirm, that the latter was the only scientific navigator in our Expedition: a gentleman, who possessed that particular modesty which is always the companion of merit, with feelings the most acute, refined by true sentiments of honour; to which (at one time, at least) he had hopes of adding some lustre in the present undertaking. His duty at length got the better of his feelings so far, as to lead him to ask, whether no other person could be sent by land, while Captain Billings himself made a second attempt by sea? And, whether it was absolutely necessary for him (Billings) to go? Receiving only evasive answers, however, he entertained hopes of better success if Captain Hall's arrival should strengthen his efforts*.

* I would most willingly have drawn a veil over this part of my narrative; but that my so doing, I thought, would have been more unjust than the cause that gave rise to it, and at the same time would have eclipsed the merit of other officers on board. The officers of the three watches were, Captain Saretshoff; Mr. Bakoff, a gentleman whose business it was to take care of the ship's materials, boats, &c. but who knew nothing of navigation or numbers; and Mr. Batakoff, a sturman, or master, whose duty was to keep the log reckoning, con to the helmsman, &c. but who had nothing to do with the working of the ship; his learning extended to a common day's work; taking the sun's altitude at noon, and its azimuth for the variation; making surveys, &c. These gentlemen, from their experience, were well qualified to keep watch; and, although not the most learned of men, possessed

“ Good sense, which only is the gift of Heav'n,

“ And, though no science, fairly worth the sev'n.

They were active, zealous, and enterprising; particularly Mr. Bakoff, who was also blessed with astonishing presence of mind in all cases of necessity or danger. The sailors and petty officers were divided into two watches: and it may be proper here to remark, that not one of the common sailors had ever seen a ship before; which, indeed, was the case with all the petty officers, except three.

Having

Having landed the provisions and stores for the second vessel, taken in a sufficient quantity of ballast, and a supply of fresh water, we were completely ready for sea on Monday the 7th July. In the evening Mr. Allegetti (Captain Hall's surgeon), Ivan Alexeeff (an ensign of jagers), and a sailor, were put on shore, to guard the stores, and with instructions for Captain Hall to follow us to the Bay of St. Laurence. At nine P. M. weighed anchor; but, falling calm, we hauled about two knots out of the basin, and again brought up.

Thursday July 8th, weighed at four A. M. with a gentle south-west breeze; but shortly after a calm compelled us a second time to come to anchor in 18 fathoms in the Bay of Amoknak, over a fine sandy bottom. At two P. M. a gentle breeze sprang up from the south south-east; which freshening, at three we got under weigh, and stood out of the Bay of Amoknak, at the mouth of which the ship's latitude, by bearings from the observations on shore, was $54^{\circ} 8'$, longitude $193^{\circ} 17'$ east from Greenwich; variation of the compass two points east; the volcano on Acutan bearing north-east 62° , Oonalgi south-east 73° . We soon after saw Akoona to the north-east. One of the natives here overtook us, and, wishing to accompany us, was taken on board with his small baidar. At eight P. M. stood away north-west, with a fresh south-east breeze and foggy weather. At midnight the wind veered to north-west, and soon after increased to a gale, with flying clouds. At noon, our observed latitude was $54^{\circ} 59' 38''$, corrected longitude $193^{\circ} 1'$. In the afternoon the wind became more moderate.

By noon of the 10th we had run 29 miles only, north-west $36^{\circ} 57'$. In the fore-part of the day, I begged Mr. Saretshoff to
heave

heave the lead, upon a supposition that he would get soundings, which he did at 80 fathoms, mud and sand, and in the evening at 75 fathoms. It had been very hazy all day, and continued so all the next day, with little wind at north north-west, and west by north. At noon of the 11th we saw several herds of sea-lions sporting, sea-birds, and weeds floating. Our 24 hours run was north-west $49^{\circ} 20'$, 75 miles. Foggy and misty weather continued all the afternoon. At night, having a fresh breeze south by west, we close-reefed our top-sails, and, in hopes of seeing in the morning the islands discovered by Prebuiloff, laid-to with the main-top-sail to the mast. Saturday the 12th, early in the morning, we righted sails, stood to west north-west, and saw land in the fog, bearing north north-west. At noon our latitude, by account, was $56^{\circ} 59'$, longitude $189^{\circ} 45'$, when the south extremity of St. George's Island bore south-east 57° , distant 16 miles; and soon after we saw the island of St. Paul. These islands appear hilly, though not mountainous; many vallies are discernible, covered with green plants, such as are to be met with on all the Aleutan islands; but there is not a tree or a shrub upon the island, except some low berry-bearing bushes from 12 to 16 inches high. A reef of rocks off the south and south-west sides of the islands extends about three miles; some of them are discovered by the breakers, while others are considerably above water. They are not furnished with any harbour; but to the north-east are bays shallow and exposed, which, however, bad as they are, afford a landing place to the hunters, whose first business is, to secure their vessels by hauling them on shore. The west extremity of the island of St. George bears, by true compass, from the north point of Oonalashka north 39° west, distant 190 miles, trending east by north, one-half east 19 miles, and is about eight miles wide. Luchanin's company are now here; but by the accounts of the

native on board, and of others with whom we spoke at Oonalashka, they get but few animals. Drift wood is also scarce, which was plenty at the time when Pribiloff first discovered these islands. This company of hunters have also a few hands with them from Oonalashka.

At eight P. M. the fog hid the land: we had a moderate breeze from the east south-east, and our course was north-west one-half west, allowing two points; variation east.

Sunday the 13th July, in the fore-part of the day, we had fresh wind east south-east, and were going under an easy sail north-west at six knots. At noon very hazy; latitude by account $58^{\circ} 38'$, longitude $188^{\circ} 28'$. The afternoon was hazy and misty; and at four P. M. we had a moderate south wind, which veered at seven P. M. to south-west. We were steering north-west and by north, but, on account of night approaching, slackened sail.

On the 14th we had a moderate south south-west breeze, with hazy and foggy weather, and kept our north-west course. At seven A. M. we saw in the haze land to the north-east, which we soon after discovered to be Cook's Pinnacle Island, and stood in for it north by east. At eight, the wind veering to south south-east, we saw a rock in the fog right a-head, so wore ship, and steered two knots south-west one-half west, when we again resumed our former course. At ten A. M. saw Gore's island a-head, and soon after observed that it extended considerably west of the north. At noon, the meridian altitude in the haze gave the latitude $60^{\circ} 30' 50''$, longitude corrected $187^{\circ} 15'$. Our distance was now about two miles from the south-east extremity of the land, trending north-west 61° . We ranged along the whole of
the



S.E. 48 30

Gores Island -



- drawn while at Anchor in the Straits.



The Detached Island 4 Miles W by N from Gores Island



The Island Semi-Sophasnoi as it appeared the 7 June 1792 bearing West dist 5 Miles.

the south-west side of the island at the distance above mentioned; and observed, that the land was moderately high, and that snow lay upon many of the higher mountains, the summits of which were hid in the fog. There were many bays, backed by low land, and some of them may, probably, afford good anchorage. The capes consisted of projecting promontories, with detached rocks extending out from 50 to 100 fathom. The vallies appeared very verdant; but the high land was barren and rocky. The extent of the island is 26 miles. Pinnacle Island lies due south at the distance of eight miles, and is a remarkably barren rock, replete with lofty pinnacles, like stacks of chimneys, with detached rocks off it in every direction.

At the distance of four miles from the south-west extremity of Gore's island, in a direction west by north, is another rocky island trending six miles north north-west. At four P. M. we entered these straits, with soundings at 12 fathom, over a fine sandy bottom. With a view of seeing whether the islands were inhabited or not, we came to anchor in the mid-channel, lowered our jolly-boat and baidar, and went ashore on the western island. We found a good landing-place in a small bight behind a detached rock, which bore due west from the vessel; the beach extending about 10 fathom from the perpendicular rocky shore, covered with drift-wood, the bones and tusks of the walrofs or morzsh, the bones of whales, the back-bone, with ribs adhering to it, of some large animal (I suppose the white bear), and fragments of rocks; agates, and other pebbles, &c. The composition of the island seemed to be mountains of jasper, some green and red, but in general yellow, veined with transparent stone like calcedoni. I ascended one of the narrow chasms in the rock to the top, which I found level, covered with moss, and some such low plants as I

had seen on the borders of the Icy Sea; foxes were numerous, of the black, red, and blue (or arctic) species. There appeared to me to be no earth upon the island, except the dung of animals, and of myriads of sea-birds, whose shrill notes almost prevented our hearing each other speak: these consisted of every species that we had seen on the coast of Kamtschatka, and all the Aleutan islands. I am inclined to think, that the birds, their eggs, and the sea animals cast on shore, constitute the chief food of the foxes in the summer; and that early in the winter the straits freeze over, when they pass to the opposite island, which, from the verdant appearance of the low lands, seems likely to afford them edible roots for their support during a long winter. I did not observe any fragments of shells of any kind on the beach, nor the least traces of any inhabitants. This island is about six miles from north to south; and, to judge from appearances, it is nearly square in its form.

The opposite island is about 14 miles from north to south; the shores everywhere broken and uneven, forming bays, bounded by projecting rugged cliffs, and detached pinnacle rocks.

Several white bears swam round the ship while we were at anchor, and three of them made many attempts to get up the ship's side; but at length they all swam to the large island. Captain Cook did not observe these straits, but thought the whole was one island.

At midnight got under weigh, and on the 15th, with a gentle south south-west breeze, kept a northern course. Our soundings were now never more than 40 fathoms, having gradually decreased to that from 100 miles north of Oonalashka, where we had 80 fathoms.

fathoms. At noon we had hazy and foggy weather; latitude, by account, $61^{\circ} 6'$, longitude $187^{\circ} 9'$.

On the 16th, wind and weather continuing, we saw no land, and our soundings had gradually decreased by noon to 26 fathom, fine sand. The last 24 hours run was 106 miles north-east $27^{\circ} 7'$, making our latitude $62^{\circ} 39'$, longitude $188^{\circ} 54'$. In the afternoon steered north one-half west. The evening being dark and misty, we hauled the wind, the ship's head being west south-west with a gentle south breeze, to keep clear of Clerke's Island. Our soundings at midnight were 24 fathom, sand and small stones.

July 17. Wind south-east by south, very foggy and misty weather. At two A. M. we stood to the north. Our soundings decreased to 15 fathoms; shingles; and many birds were flying about the ship. At six A. M. soundings 12, 11, 10 fathoms, when we suddenly got the bottom with six fathom line. We immediately hauled the wind, which freshened upon us, and stood south by east. In this direction we soon deepened our water to eight, nine, and ten, when it again shoaled to six fathom. We now considered ourselves as embayed in Clerke's Island, and kept working to windward; the soundings regularly decreasing on both tacks. At noon, our latitude was, by account, $63^{\circ} 23'$, longitude $189^{\circ} 29'$. Continued making short boards till two P. M., when we brought up in six fathom, sand and stones; but, the anchor not holding, we dropped a second, and immediately after saw low land from east north-east one-half east, to west north-west, distant in the nearest place about three miles, which was immediately after hid again in the fog. The wind increased to a brisk gale, and the weather was misty and rainy all night.

July

July 18. Being very squally, with showers and heavy fogs, we got a spare anchor ready. At ten A. M. a hard gale coming on from east south-east, we kept occasionally paying out cable. About noon, the cable of the best bower parted, and we dropped our spare anchor in four fathoms, and payed out 15 fathoms cable, having only three fathoms at the ship's stern. As the gale continued, and no land was to be seen on account of the thick weather, we got a large spare anchor out of the hold, and belayed a cable to it in case of need. The night was very dark, with a rough sea, and breakers just astern.

The 19th, at four A. M., the wind became more moderate, but the fog still continued. The sea being less agitated, we lowered our boats, and fished up our best bower. At noon, in a moderate wind, we sent a master's mate towards shore to sound, and weighed the two spare anchors. We observed a current to the west at three quarters of a knot. The master's mate reported, that he found three fathoms pretty close in with the shore, but that the surf was violent. At six P. M. the fog clearing up, we discovered several mountains covered with snow from west south-west to north one-half east, and low land to east north-east one-half east.

Sunday the 20th, south-east by east, a moderate breeze, hazy and misty. At noon the weather cleared up a little, and we saw lofty mountains covered with snow south-west by south one-half west, and a peaked mountain, seemingly at a great distance beyond the high land north-west by north; our observed latitude being $63^{\circ} 26' 34''$. At two P. M. we saw two men walking along the low beach, who made a stand opposite the ship, and, having something hoisted on a pole, waved it backwards and forwards.

wards. We immediately hoisted our flag. Mr. Bakoff was sent with the baidar on shore; but the breakers were so violent, that he could neither land nor get within hale; he therefore returned at six P. M. We observed the variation of the compass $24^{\circ} 16' 30''$ east. For the better trim of the ship, we filled six casks with sea water.

On the 21st we had little wind from the south-east, with rain at intervals. At noon Captain Billings and several gentlemen went on shore on the low beach. At eight P. M. a gentle breeze sprung up from the north-west, and the weather cleared amazingly, I went to the main-top-mast head, whence I could plainly see the spit of land, where the Captain went ashore, join to a mountain bearing west by north, distant 10 miles, trending due east about 17 miles, where it terminated, leaving a passage into the lake which appeared behind it, and upon which I perceived a large boat rowing toward the mountains. The extremity of this spit of land I computed at eight miles from the ship, in a direction east north-east one-half east; and in the same direction three miles farther is a projecting mountain, which constitutes a part of the island, from which the land takes a circular sweep north-west to the top of the lake, continuing the circle to south by west.

We now took the following bearings: the south extremity of land, as far as we could trace a communication of mountains by low land, south-west 50° , distant about 12 miles. The body of a mountain, which appeared a detached island, south-west $32^{\circ} 30'$, about 20 miles. Another mountain, seemingly detached from south-west 8° to south 23° west, about 16 miles. The promontory nearest the extremity of the spit of land north-east 78° , from whence it took another circular sweep to south-east 75° ,
where

where we perceived high land at about 10 leagues; but could not discern whether it was connected, or formed a separate island; and several intervening mountains were in the same state of uncertainty. At nine P. M. Captain Billings returned on board, and we immediately got under weigh. He said, the sea broke so violently on the beach, that it was with great difficulty they effected a landing; and the Oonalashkan, who had accompanied them in his small baidar, had had it dashed to pieces. Observing a foot-path on the spit of land which was only 20 yards wide, he walked along it, in hope of meeting with some of the natives at habitations which appeared at no very considerable distance. The shore was almost covered with the bones of sea animals. He passed several dogs that were very tame; and, at the distance of about three miles from the landing place, he saw several scaffolds six feet high, evidently for the purpose of preserving, and keeping out of the reach of dogs, &c. fish and sea animals; but no habitations were near. The sailors near the boats observed a very large baidar crossing the lake from the vallies on the opposite side, containing, as they supposed, about 30 men. Upon seeing this boat, one of the men walked along the path which Captain Billings had taken; but, not seeing him, and the boat advancing very fast, he fired his musket, as a signal for the Captain; upon which the boat immediately stood back with all possible speed. In consequence, they had no intercourse with the natives.

Thursday the 22d, by five A. M. having steered south south-east, east, and east by north, we made 23 miles south-east 79° , when we rose more land a-head, and were fully convinced that all the mountains between which there seemed to be straits, were joined by low land. The appearance, however, greatly justifies
Lieuten-

Lieutenant Synd in placing so many islands in these parts. Our glasses discovered all the vallies occupied by the buildings of the natives, and scaffolds for preparing or drying fish and the flesh of sea animals. Numbers of large boats also were hauled on the shores; so that this island must be very populous. By noon we were off the south-east extremity of the island, at the distance of one mile and a half; our observed latitude $62^{\circ} 55'$, having sailed from our place of anchorage 43 miles east south-east. We now doubled this cape, off which are two small islands, the largest about one mile in length, narrow, and replete with huts and scaffolds; behind which we thought there was every appearance of good anchorage. The soundings were very uniform, according to our distance from shore; 12 fathom at the greater distance, gradually decreasing, as we approached the land, to five and four fathoms at one mile and a half.

Having cleared this island, we stood north and north-east about 20 miles, when the north-east extremity of the land bore west, having a mountainous appearance, and terminating in a bluff-headed cape. [We did not see Anderson's Island.]

The wind shifted to west south-west, and we shaped our course north-west by west, with foggy weather. At noon our latitude, by account, was $63^{\circ} 43'$, longitude $192^{\circ} 7'$. The afternoon was hazy, with rain, and a gentle southerly breeze. At eight P. M. the wind veered to north-east, and soon blew hard.

The 24th we had a brisk gale from north north-west, on account of which we laid-to under main and mizen about three hours, when we stood away east north-east to get well clear of the east of Clerke's Island, which would otherwise prove a lee-

shore, if the gale should continue; and the very narrow escape that we had already experienced made us rather fearful of using too much freedom with this island. At noon we got the sun's altitude in the haze, latitude $64^{\circ} 4' 26''$. Afternoon cloudy: kept our course till midnight, with soundings at 19, 18, and 17 fathoms.

The 25th we had a hard gale north north-west with a rough short sea, and laid-to under main and mizen till noon, when we got the sun's altitude; latitude $63^{\circ} 26' 23''$, longitude, by account, $193^{\circ} 20'$. We now steered north north-east under close-reefed top-sails, the wind north-west, making two points and a half leeway, with 17 fathoms sandy bottom. At $3^{\circ} 47' 25''$, apparent time, the sun and moon's distance made our longitude $192^{\circ} 24' 45''$, latitude $63^{\circ} 28' 30''$. At eight P. M. we wore ship, steering west by south till the 26th, at seven A. M. when we saw Clerke's Island right a-head. The wind blowing from the west a gentle breeze, we let out all reefs, and set top-gallant sails. At noon, our latitude, by account, was $63^{\circ} 10' 41''$, hazy. In the afternoon, with light airs, we kept a northern course. On Sunday the 27th, in the morning, we had foggy weather, with little wind from the north-west. At eight A. M. it cleared up a little, and at noon we observed the latitude $63^{\circ} 31' 8''$, longitude $192^{\circ} 55'$. The afternoon being clear, with little wind, we kept a course north-east by east all day. The 28th, a gentle breeze west by north, steering north by west. At ten A. M. we saw high land north-east 7° , and low land north-west 10° . At noon the latitude observed was $64^{\circ} 12' 19''$, Sledge Island bearing north-west 6° , distant 12 miles. At one P. M. the continent of America bore from north-west 55° to north-east $35'$. At four P. M. being about eight miles south of the nearest land, we cast anchor in 12

fathoms; our latitude being $64^{\circ} 20'$, longitude, corrected from our last lunar observation, 164° east, Sledge Island south 78° west, distant nine miles, Cape Rodney north-west 75° , also nine miles.

Captain Billings ordered the boats out, and went on shore with the naturalist, draftsman, Mr. Bakoff, and Ensign Bakulin, with a few soldiers armed, besides sailors in the long-boat and skiff. We observed a current setting to the east, at half a knot.

In the morning of the 29th we had very light airs from the west, with cloudy weather. At six A. M. a baidar containing nine of the natives rowed alongside, and came on board upon the first invitation, leaving their arms in the boat, consisting of bows, and arrows pointed with green jade, calcedoni, and ivory; the bow strengthened, and rendered more elastic, by the sinews of the rein-deer, which were artfully bound round it. They had also lances about seven or eight feet long, some pointed with iron, but very few; the generality being pointed with the tusks of the morzh or walrofs very neatly cut. Upon one of them they hoisted a bladder, which signal we answered with a flag, and they immediately came on board. They were well limbed, rather tall, had fine open and agreeable countenances, and were handsome and healthy. Their dress was very neat and clean; being half-boots, neatly embroidered about the instep with different coloured hair and sinews, made of beautiful white leather, and tied round above the ankle with narrow slips of red leather, the soles made of bears' hide smoked; tight, well made pantaloons, also of leather dyed yellow or red; a very neat park, resembling a carter's frock, reaching down to the knees, rounded before and behind, so as to form two flaps, and open at the sides up to the hips. They wore no covering on the head;

and the hair was cut almost as short as if shaven. They regarded every thing on board with admiration, but did not appear to be of a pilfering disposition. I gave each of them a glass bead, and they immediately expressed great anxiety to obtain more, but had no articles of barter with them. They exchanged a few very neatly-made adzes of green jasper, or jade, extremely sharp; nor did they scruple to part with their arms, and even stripped themselves, giving their clothes for beads, knives, &c. One of them by accident broke a small pane of glass, which threw them all into a state of dismay. He immediately offered his lance by way of indemnification; but we made him understand that it was no loss, by putting in another, and laughing at his concern, which pleased them all very much. They left us, making signs that they would soon return with some articles of trade for beads, &c. and paddled away towards Cape Rodney.

At ten P. M. the skiff returned with the Captain and Ensign. The long-boat, with the other gentlemen, did not get on board till the 30th towards midnight. The following account of their excursion I translated from the original remarks of one of the gentlemen in the party.

“ We landed on a sandy beach near the discharge of a small
“ river; hauled both boats on shore; and made a fire with drift-
“ wood, which was in great plenty. The Captain, Mr. Bakoff,
“ the Doctor, and Draftsman, walked along a narrow path on
“ shore, quite unarmed; and at a small distance from the boats,
“ we saw two natives coming toward us. When advanced with-
“ in a few fathoms, they made a stand; upon which beads were
“ shewn them, and a few thrown on the ground. They were
“ armed with lances, and advanced with the points toward us;
“ but

“ but upon seeing the beads, and observing our signs of friend-
“ ship, they turned the points of their lances behind them, and
“ approached without hesitation. Upon the first sight of the
“ natives, our interpreters were sent for, viz. the Oonalashkan,
“ the American taken from Kadiak, and an Anadyrsky Cossack,
“ whose mother was a Tshutski woman. This latter they un-
“ derstood perfectly well, and, embracing him upon his speaking
“ the language of the Tshutski, we concluded that they were of
“ that nation, and not Americans. We returned all together to
“ the boats, and Captain Billings gave each of them a copper me-
“ dal and a few beads. Shortly after we were joined by two other
“ Americans, and obtained of them, for beads and a few uniform
“ buttons, their bows, arrows, and lances. Upon their invita-
“ tion we accompanied them to their dwelling, leaving only four
“ men armed to guard the boats. The habitation was situated
“ four versts from our landing-place ; and upon our arrival skins
“ of rein-deer and other animals were spread for our seats before
“ the fire. When we were placed, the hostess presented each
“ with a thin slip of the skin of a marten, and immediately after
“ with fish, and the meat of the deer boiled ; but the intolerable
“ stench of the hut took away all appetite on our part. It was
“ dark when we arrived at the habitation ; so that we knew not
“ its extent, nor the number of its inhabitants ; notwithstanding
“ the friendly behaviour of the natives, therefore, and though we
“ were well guarded by our soldiers and sailors, armed, and keep-
“ ing a regular watch, we passed a sleepless night.

“ In the morning of the 29th we discovered that we were not
“ in a village, but in the temporary tent of a single family, pitch-
“ ed for the sake of fishing, and hunting wild-deer. The tent
“ was

“ was covered with leather, except on one side, which consisted
“ of the intestines of sea animals for the admission of light.

“ At noon we returned to our boats, where, we were inform-
“ ed, several natives had been, and traded with the men, giving
“ them martens' skins, the river-otter, and foxes, for beads ; and
“ that they invited them to their habitation, pointing out the di-
“ rection, which we followed, along a small path of about five
“ versts. When we arrived there, we were also treated with the
“ greatest friendship, and received in return for our presents, the
“ skins of martens, foxes black and red, lynxes, and gluttons.
“ Blue glass beads, iron, and metal-buttons, were their favourite
“ articles of barter.

“ The Captain returned to the boats at seven P. M. where he
“ found the Ensign ; and, immediately embarking in his skiff,
“ with him and four sailors, rowed on board. Dr. Merck was
“ collecting plants and other natural curiosities ; and the different
“ hands were scattered, some trading with the natives ; so that
“ it was near dark before we were all collected.

“ Mr. Bakoff bought a baidar of the natives, in which he
“ placed four sailors ; and, after taking some refreshment, we
“ put off together. There was but little wind, and that was right
“ in our teeth. The sea was rough, and the current against us.
“ We rowed about two hours, when the wind freshened, and it
“ rained hard. Having a small kedge on board, we brought up
“ to wait day-light, very wet and much fatigued, and had lost
“ sight of the baidar.

“ At



MISCELLANEOUS

Fig. 1 A Pick ax used by the Tshutzki made of the Tusk of the Morzsh. Fig. 2 Stone Hatchet of America, with its Osse Fig. 4 Sepulchre of Oonalashka. Fig. 5, 6 & 7, Baidar Dress and Bow used by the Natives of both Continents at Berings Straits. Fig. 3 an Instrument used by the Tshutski.

“ At day-break it cleared up a little, and we saw the ship ;
“ upon which we weighed, and took to the oars ; but, the wind
“ freshening with a head sea, we made but little way ; and after
“ six hours labour, the sea breaking into the boat frequently,
“ which kept some hands constantly bailing out the water, all
“ wet and exhausted, we hoisted a sail, and stood back for shore.
“ We ran on the sandy-beach near our former landing-place,
“ cold, and almost helpless, with no means of making a fire ;
“ but, to our inexpressible joy, some embers of the large fire
“ which we had made of the drift-wood were still burning, and
“ these enabled us to dry ourselves. At four P. M., both wind
“ and sea being much abated, and pretty clear, we again pushed
“ off, and reached the ship by midnight, but heard nothing of
“ the baidar, for the safety of which we were under great appre-
“ hensions *.”

From our fears, however, we were relieved at four A. M. of the 31st, by her safe arrival on board. The sailors said, that rowing about in the dark and rain, without knowing where, they were cast on shore about 10 versts to the west of our landing-place ; and that, notwithstanding the violence of the surf, and the hollow waves, the baidar did not ship a single sea. They said, that they were surrounded by the natives at day-light, and traded with them ; but gave them a very bad character. I cannot guess what articles of trade they had ; but they obtained several skins of black and red foxes, martens, &c. I hope that the natives had not the greater reason to complain.

* Captain Billings told me, that he saw very neat earthen pots, in which the natives dressed their food, and that they had bowls and buckets of wood, with wooden spoons ; that he saw their armour, some made of wood, and some of bones, resembling those at Prince William's Sound.

At eight A. M. we weighed anchor with a gentle breeze from the south, shaping our course west and west north-west; but, falling calm at two P. M., and getting into a current of one mile and a half west, we brought up between Sledge island and the main. A large baidar full of natives, and two small ones, rowed alongside; but before they came close they sang a song, and made several antic motions. In token of friendship, they had a bladder hoisted on a pole; however, they would not be persuaded to come on board, but exchanged several articles of curiosity for beads, &c. At eight P. M. we again got under weigh, with a gentle north-west breeze, which soon shifted to the west and west south-west, with cloudy and hazy weather. At noon of the 1st of August, our latitude, by ship's reckoning, was $64^{\circ} 40'$; longitude, corrected from our observation of the 25th July, $192^{\circ} 27'$. At four P. M. we saw King's Island, which is very lofty; the summit broken and irregular; replete with pinnacle rocks; round in its appearance, and about five miles in circumference. We had a moderate south south-west breeze, and our course was westward.

On the 2d August we stood for the bay of St. Laurence. At nine A. M. saw the three islands in the mid-channel of Bering's Straits. Our latitude at noon was, by observation, $65^{\circ} 23' 50''$, corrected longitude $190^{\circ} 37'$, when we saw the promontories on both continents, and the interjacent islands. At eight P. M. we took the following bearings: a promontory on the continent of America, north-east 49° . First island, north-east 35° ; second, north-east 18° ; third, north-east 9° . The eastern Asiatic promontory north-west 29° .

We

We had variable light airs, and calms, with hazy weather, till Sunday the 3d, at six A. M. when a gentle breeze sprang up from the south south-east, which made us ply to windward, making short boards for the bay of St. Laurence; till the 4th, at noon, when our latitude was $65^{\circ} 37'$, longitude $189^{\circ} 18'$. The wind shifting northerly, we stood into the bay, and at four P. M. came to anchor.

C H A P. XVIII.

Reception by the Natives.—An Adventure of the Author.—Singular kind of Encampment.—Barter with the Male, and liberal accommodation with the Female Inhabitants.—Division of the Tshutski Nation into two Tribes; which are separately described.—Captain Billings, with a Party, leaves the Ship for the purpose of a Land Excursion across the Country to the Kovima.—Tshutski Pastimes, &c.—Captain Saretsheff, pursuant to order, sails for Oonalashka, and anchors in the Harbour of Illuluk.—Captain Hall arrives.—Preparations made for a Winter's Residence.—Tribute collected.—Mission from Shelikoff's Establishment at Kadiak.—Sketch of the Natural History of the Island of Oonalashka.—A Hurricane.

WE had no sooner dropped our anchor than a baidar full of Tshutski came along-side, and shewed us a paper from Kobeleff, who (they said) was now at the eastern promontory; and Dauerkin was with his relations toward Anadyrsk; but they added, that we must come on shore and give them some tobacco before they would let us have the paper. Captain Billings went on shore in his full uniform, and was received with every token of friendship and respect. Dauerkin was immediately sent for, and our intercourse with the natives was perfectly free and unguarded. On the 6th, at noon, Dauerkin arrived, with 12 large baidars full of Tshutski, whose numbers increased hourly. They had plenty of skins of foxes, martins, hares, and the musk-rat of America, whence, indeed, they obtain the greatest number of their furs, boats,

boats, and arms, in exchange for such articles as they get from Izshiginfk, and from the wandering peddling traders about the estuary of the Kovima, &c.

On the 7th, I went on shore in uniform, but was not very well pleased with the reception that I met with. I had strolled among the Tshutski to some distance from our tents and people, where one of the natives began to cut the buttons off my coat. I struck him on the stomach with my fist, and he fell over some loose stones behind him. One of our men (Vassiley Tolstichen, a native of Anadyrsk), observing the transaction, ran towards me; the man got up and laughed, not seeming to be the least offended at the blow. Tolstichen told me, that they always insulted little men, and such as were less active than they. Upon hearing this, I challenged any one of them to run or leap. One of them offered to run with me to a point of land at least a mile distant, and back again; this, however, I rejected, and proposed running toward the boats, a little more than 200 yards. Arriving first at the goal, I received the pleasing compliment of their acknowledging that I was, indeed, a man, though but a very little one. Not being inclined, however, to perform for their entertainment, I returned on board, fully resolved not to quit the ship again so long as she remained here.

The beach was now covered with the baidars of the natives, hauled on shore and turned keel upwards, one gunnel resting on the ground, the other supported on their paddles: thus they served the purpose of tents; and old dressed deer-skins sewed together were used instead of curtains for the open side. Here the natives, men and women, slept indiscriminately. The former traded with their dresses, furs, tusks of the walrofs, whales' fins,

and pieces of the gut of rein-deer stuffed with chopped meat, marrow, and fat. The latter were extremely happy to grant any favours for beads, buttons, tobacco, &c. and that even in the presence of the men, who actually introduced our people to the women when they had no other articles of trade. These, however, were not their wives, but prisoners taken from their American neighbours, with whom they are frequently at war. The cause of the last affair between them was this: both parties meeting, on the chase of sea animals, quarrelled; an engagement commenced, in which the Americans took one baidar and made the crew prisoners; the other, returning, procured a reinforcement, made a descent on the American coast, carried off a few women, and then peace was restored.

The Tshutski nation is divided into two very distinct tribes: the one is called Stationary, or fixed inhabitants of the coast; the other, Reindeer, or wanderers.

The former occupy such places as are convenient for fishing and the chase of sea animals, from the river Anadyr to a small distance north of the eastern promontory. The extent of their population, according to the best intelligence that I could obtain, amounts to about 3000 males. Their chief habitations are about the bay of Anadirsk, particularly in the vicinity of Serdſi Kamen *, and in the gulph of Metchickma, which is between the

* Serdſi Kamen is a very remarkable mountain, situated in the north-east part of the bay of Anadirsk, and projecting into it. The back or inland part is replete with cavities, whither the Tshutski fled when attacked by Pavlutski. Here, secreting themselves in the cavities of the rock, they shot great numbers of the Russians on their passing by. Pavlutski had at this time but a few of his followers with him, and returned to Anadirsk for a reinforcement; where he related, that the Tshutski shot his people from the heart of the rock; whence it acquired the name of Serdſi Kamen, or the heart-stone.

bays of Anadirsk and St. Laurence. North of the eastern promontory the dwellings are but few, because the sea is not so prolific of fish, nor are there any forests; but the marine animals are more numerous, which is the cause of its being frequented on the chase; which sometimes induces them to pass the Shalatskoi promontory into the Tshaoon bay; which, they say, is about 15 days' journey from the eastern cape, sleeping on shore every night. They were in this bay two seasons waiting for our expedition from the river Kovima,—I suppose in 1787 and 1788.

They appear very industrious, and are neat workmen, which is evinced by their baidars, lances, arrows, bows, apparel, utensils, &c. with which they supply the wanderers. They also trade with their female prisoners, receiving in return rein-deer, copper and iron kettles, knives, beads, and such articles as the rovers obtain from the Russian traders.

They dig cellars, in which they keep their supplies of food and oils. The provision consists of dried meat of sea animals and deer, roots, and berries. They regard the lips and snout of the morzh, or walrofs, as a great delicacy when boiled almost to a jelly. The oil of the sea animals they keep in seal-skins, and of this they obtain immense quantities; it not only being used for food, firing, and light, but also constituting a great article of commerce with the wandering tribe.

Kobeleff and Dauerkin have published very wonderful accounts of these people. Among other stories, they relate, that “the Tshutski, when aged or ill, require their friends to kill them, which is immediately performed, as well with women as men; and that a sharp knife is the only remedy for all disorders.”

“orders.” But this they positively denied. I discovered by means of Tolstichen, that the aged were subject to rheumatic complaints, which they cured by lighting the dried leaves of worm-wood, so prepared as to burn like tinder, and letting it remain till burnt out on the affected parts: a custom also observed by the Yukagers, Tungoose, and Yakuti. That if they had any swellings from wounds, splinters, or any other cause, they applied a poultice, composed of chewed edible roots, moistened with fresh oil; and in cases of severe illness, offered sacrifices of deer to the spirits of torture; and sometimes a dog was killed, the sick led round it, and anointed with its blood and fat. In case of death, the body is burnt to ashes; stones are laid on the spot, to resemble in some degree the body of the man; a large stone at the head, anointed with marrow and fat; and the horns of deer form a pile or heap at a small distance. This place is visited once a-year by the relatives, who recapitulate the feats and actions of the deceased, by way of remembrance, when each of them adds a horn to the heap, and anoints the head stone.

I was not able to learn any particulars of their religious rites and ceremonies, nor any remarkable customs. They reckon only two seasons in the year, summer and winter; at the commencement of each of which they make sacrifices and merriments, in gratitude for what is past, and as an invocation for future success.

Kobeleff asserts, “that the wandering Tshutski make a practice
“of lending their wives to strangers, as a mark of friendship;
“and that they frequently exchange them amongst one another
“for a short time.” This, however, is not the case; for these people are extremely attached to their wives and progeny; and if one of them were inconstant to her husband, she would be
8 abandoned

abandoned by all: nor can a greater odium be thrown on a Tshutski woman, than to suspect her guilty of favouring a stranger.

The wandering tribe consider themselves as a superior race of beings, and the most independent of men. They call all the nations that surround them old women, only fit to guard their flocks, and be their attendants; particularly the Koriaki. Reindeer are their only riches: these, and the skins of such animals as they kill in their wanderings, they exchange with the Russians, &c. for kettles, knives, and trinkets, which articles procure them arms, dresses, slaves, &c. from the stationary tribe. Their customs are alike, as is also their language.—This is all the intelligence that I could obtain of these people during my short stay.

On the 12th August, Captain Billings, being completely ready to leave the ship, selected for his companions across the country to the Kovima the following gentlemen:

Our naturalist,	-	Dr. Merck;
His assistant,	-	Mr. Main;
Master, or Sturman,	-	Mr. Batakoff;
His mate,	-	Mr. Gileeff;
Draftsman,	-	Mr. Varonin;
Surgeon's mate,	-	Mr. Leman;
Translators,	-	{ Dauerkin and Kobeleff;

Attendants, two soldiers, and the Captain's cabin boy: in all twelve. (Kobeleff, not arriving here in time, was to join the company at an appointed place on the road, at no great distance.)

Captain

Captain Saretshoff received directions to sail to Oonalashka, to collect tribute from the natives of all the neighbouring islands during the winter; and early in the spring to proceed to Kamtshatka, where Captain Billings said he would join us. Similar orders were to be left with the inhabitants of the bay for Captain Hall, to be given him upon his arrival.

In the evening the whole party took leave of the ship's company and went on shore, intending to set out on their journey early the next morning. The immense quantity of articles that Captain Billings took with him for presents, to secure the friendship of the Tshutski, and ensure his own safety, appeared to me more likely to have a contrary effect. However, he seemed convinced that there was no danger to be feared from the natives.

On Wednesday the 13th August, early in the morning, we saw the baidars of the Tshutski launched, and loading with the baggage of our friends; and at nine o'clock they departed in fifteen baidars, taking with them our most sincere wishes for their prosperity and success. The prospect, indeed, was but a melancholy one.

There were now only two families of the Tshutski left in their tent, and Captain Saretshoff and I went on shore. We saw several boys skipping with a rope, and learnt that this was a favourite exercise, and very customary among the young women, of whom two held a rope, one at each end, and while they swung it round, a third stood in the middle to leap over it. We also observed boys and girls jumping on a skin in the same manner as we had seen them on the island of Tanaga; but the skin in this instance was that of a walross, with proper handles made of thongs for

for six or eight people to hold, which enabled them the better to catch and throw up the leaper. They also had a game of exercise resembling prisoners-bars, and threw stones from a sling with great exactness.

I saw a woman dressing a deer skin with the hair on: it was, however, the latter part of the process; for it had been cleared of the flesh and filaments that adhere when taken off the animal, and had been covered with a coat of wet whitish clay; which, being dry, she was scraping off with a stone fixed in a piece of stick about two feet long, each end serving for a handle: the stone had a rough but not very sharp edge, and the skin was fastened to a board. The whole process is exactly the same as is practised by all the Asiatic Tartars. For farther particulars concerning these people, I must beg leave to refer my readers to some remarks taken from the memoranda of Captain Billings's companions in his land excursion through their country, and which will be found in a future chapter.

The Tshutski call Clerke's island E-oo-vogen; and say, that it is the same distance from the north eastern cape of the bay of Anadirsk, or Tshukotskoi Nofs; as is Kygmil (Cape Prince of Wales) from the eastern promontory; that they pass over in a day, and the island is extremely populous.

We made the distance between the two continents 48 miles, the eastern promontory bearing north-west 42° from cape Prince of Wales, and the bay of St. Laurence from the same point west by north 62 miles, by true compass. The three interjacent islands are called, the first Inalin, from the eastern promontory 24 miles, bearing south-east 26° . Six miles farther, in a direction

east by north, is the second and largest, Imaglin. Okivaki is the third and smallest, 10 miles distant, south by east.

King's island they call Okiben, and Sledge island Ayak. The bay formed by the two capes, Prince of Wales and Rodney, is named Imagru, the deepest part of which is the discharge of a considerable river called Ka-ooveren; near the source of which, the natives say, the country is well wooded. Kobeleff, speaking of a river in the vicinity of this place, relates, that on its border is a small town containing a church and ostrog, built and inhabited by Russians. He supposes them to be the remains of the shipwrecked companions of Deshneff, a Russian adventurer who left the river Lena with seven vessels in 1648, and, having failed round the land of the Tshutski, arrived at Anadirsk alone, the other six vessels being never afterwards heard of*. Notwithstanding all my endeavours, I could not find any body that knew aught of this matter, or had ever heard of any such place existing.

At noon we returned on board, and immediately got under weigh. The Tshutski had promised to give Captain Saretshneff some fresh meat in the bay of Metshikma; but he observed, as we passed this bay in the afternoon, that he could not weather the southern cape, if he entered with the present wind from the east of the north; he, therefore, thought it more prudent to pursue his voyage, than risk the encountering any difficulties for the sake of a small quantity of rein-deer meat. He considered the time also of too much consequence to be trifled with, the more especially as we had but a very bad supply of fire-wood on board,

* For a particular account of this adventure, taken from original papers, see Coxe's "Russian Discoveries."

and were destined to pass the winter at Oonalashka, which place produces none, except the ground willow, not exceeding the thickness of a walking stick, and that only in a very few detached places between the mountains, difficult of access: a circumstance which made it absolutely necessary for us to endeavour to procure some on our passage, if possible. We had seen a considerable quantity drifted on the beach of Gore's Islands, and this appeared the most eligible place at which to procure it. The resolution, therefore, was taken, to direct our course for this place. The weather was very foggy; so that we passed the west side of Clerke's island, and to the east of the promontories that form the capes to the bay of Anadirsk, without seeing land. The wind continued from the north-east, and the weather remained wet and foggy; so that we passed Gore's Islands without getting a sight of them. Nor did we dare venture an attempt to approach too near. Considering our present situation, nothing but Captain Saretshoff's anxiety about Captain Hall and the gentlemen left at Oonalashka, prevented his steering direct for the harbour of St. Peter and St. Paul in Kamtschatka. This alone induced him to take the resolution of steering direct for the island of Oonalashka, which was the first land that we made, and this we reached on the 29th August, when we anchored in our old place in the harbour of Illuluk.

We were now informed, that Captain Hall arrived here a few days after our departure, and, having taken on board the gentlemen, stores, &c. left for him, had followed us to the bay of St. Laurence. We were, therefore, in hourly expectation of his return; and on the 31st he appeared in the offing, and the next day (the 1st of September) came to anchor along-side. We had hauled our ship into a little cove behind a small rocky island. It

had the appearance of a pond 25 fathom wide, and 150 fathom in length; the north-east bounds were low land, but in every other direction lofty mountains. Four anchors were carried ashore, two on the starboard, and two on the larboard side, from the head and stern; and two cables were belayed to each anchor. The small vessel, which Captain Hall had named the Black Eagle, was moored along-side, at the distance of 20 feet. These precautions were taken in consequence of the natives telling us, that the squalls in winter were very violent, particularly in this part of the island. Here we laid up our vessels for the winter, and built a shed on shore, of yards, top-masts, &c. covered with sails, in which we kept the articles and provisions that were landed. We also erected a working shed of sods, thatched with rush grass, for the sail-maker, carpenter, block-maker, &c. The roof was formed of spare yards, spars, and oars; and the window-frames were constructed of old cask-staves. This building also contained two ovens for baking bread, &c. The commissary, or rather purser, Mr. Erling, a Russian, and I, built a small hut nearly in the same manner; the inside of which we lined with whales' fins. The captains of both vessels, and other officers, retained their births on board; as did also the greater part of the crew; for the habitations of the natives were so small, and formed so entirely without conveniencies, that none of our sailors or petty officers chose to take a birth among them. Their nearest village was that of Illuluk, about a mile from the vessels; and that consisted of four or five huts, pretty deep under ground; the tops of which were overgrown with grass and weeds, and presented an appearance resembling heaps of earth: the entrance was at the top, through a small square hole, which also served for the admission of light, and the discharge of smoke. The want of fire-wood and other timber precluded the possibility of erecting barracks; and the account
which

which the natives gave of the mildness of the climate justified the choice of the vessels, which were the more convenient habitations. Besides, it secured to all hands the rations of provision and brandy, which are allowed only at sea or in a foreign port.

We had constantly some party or parties out in our boats, collecting the drift-wood on the beach, which, however, was in general so sodden with sea water, that it would not burn; and they were fortunate if during the day they collected a day's supply. These parties were furnished with muskets and ammunition for shooting wild fowl, which were also scarce and shy. Numbers of hands were also sent inland to cut the ground-willows.

The natives having been informed, before we departed for the land of the Tshutski, that we should return to pass the winter on this island, had caught and dried a quantity of halibut, cod-fish, and salmon. They had also collected a considerable quantity of berries in casks which were left with them for that purpose; and every possible precaution had been taken to secure fresh provision for the winter; for our salted beef no longer possessed its nutritive juices, and our dried bread was almost exhausted: but we had with us a considerable supply of flour; so that we only wanted fire-wood to bake it.

We now formed among ourselves a little republic, in perfect congeniality of sentiment, complete friendship and harmony; equal in our manners and way of living; uncontrolled by severity, yet observing strict order and subordination. I may say, that the possessions, even the purses, of each were subservient to the wants of the other. Our society consisted of, Captains Robert Hall, Gabriel Saretsheff, and Christian Bering; our surgeon-major

major Robeck; surgeon Allegetti; Messrs. Bakoff, Bakulin, Erling, Pribuiloff, and myself.

Having thus described our situation and arrangements, I shall proceed to our occupations. The natives were informed, that our orders were, to collect tribute, and to receive such as they voluntarily chose to give as an acknowledgment of their subjection to the Court of Russia; but that we were not authorised to exact any thing beyond what they could conveniently spare; at the same time they were desired to bring the receipts for the tribute which they had given to the hunters, or Russian Promyshlenicks. Several of the inhabitants immediately brought black and red fox-skins, and received presents for the same, more in their estimation than equal to the value. In their fishing parties they fell in with the natives of other islands, and communicated the intelligence; so that this part of our business was known to all the natives of the western islands, and to those eastward as far as to Kadiak, from which island Shelikoff's establishment dispatched to us two of their companions, who were escorted by numbers of the natives of the different Aleutan islands and of Kadiak*. The object of their mission was, to request a supply of medicines (with directions how to use them) for the venereal disease, which had arrived in their different settlements at an alarming height. They also were in want of many common necessaries, as tobacco, brandy, &c.; of the latter articles we could not send them any, Captain Billings having left us but a very scanty stock; but of medicines our surgeon-major sent as much as he could

* I took this opportunity to prove the correctness of my Vocabulary, and to make particular inquiries about Alaksa; which they assured me was not an island, and that I must have been mistaken in supposing they called it a Kichtack; that no straits existed; but that they frequently carried their boats across a narrow neck of land, and went down a river to the north side of this point of land.

possibly

possibly spare, with proper directions for using them. Numbers of the natives of the Aleutan * Islands, who accompanied the mission, complained of the treatment they met with, and wished to return to their homes: to the best of my recollection, they were liberated; the hunters, however, were told, that they must be answerable for the tribute of such as they kept in their employ, as also for the manner in which they treated them.

Shortly after our arrival at this island, several of our hands were afflicted with the scurvy, but in a slight degree; and such as chose to reside on shore were allowed a birth in the workshop. We had malt, hops, and a considerable quantity of essence of spruce; and beer was brewed for the benefit of all hands, especially the sick. Berries were also administered, and every antiscorbutic that we could procure; but we did not perceive that any good arose from it.

The shocking accounts that we had heard of the ravages which the scurvy had made among the different hunters who had passed the winter on this island, and particularly the crew of Levasheff's vessel, who commanded the second ship in Captain Krenitsin's expedition in the year 1768 †, made every one of us dread the effects of this fatal disease; and, thinking the best way to guard against it was, to copy the natives in their mode of living, I made the chief part of my diet consist of raw fish, muscles, and limpets; using, instead of tea in the morning, a tea-

* By the Aleutan Islands, I mean the whole chain from the point of Alaksa westward to Kamtschatka, except Bering's and Copper Islands.

† This officer lost almost all his hands by this dreadful disorder; nor could he ever have left the island without assistance of men from Krenitsin's vessel, who had passed the winter in the straits of Alaksa.

spoonful of essence of spruce in a small tea-kettle full of boiling water ; and in the evening, we boiled beer with berries, sugar, and pepper, which, with the addition of some corn-brandv, was our substitute for punch.

I also daily collected a sufficient quantity of wild cresses to afford a sallad for our mess ; and on Sundays procured enough for the whole company in the cabin. Two or three times a week I obtained also fresh fish, by frequenting the rocks at low water, which were overflowed at flood ; and these I caught by the following stratagem : I baited a fish-hook with a raw muscle, and thrust it into the holes, or rather cavities, in the rocks : the fish lurking under these stones took my bait, and I by these means sometimes in the course of half an hour caught half a dozen fish : the sorts were—the wrasse, the father lasher, a large species of the blenny, and the turpug. [For a particular description of some of these fish, I refer my reader to the APPENDIX.] The other fish are halibut, cod, two or three species of salmon, and sometimes, but very rarely, the tshavitsha, a species of salmon very common in Kamtschatka, about Neizhni, between four and five feet long ; also thornbacks and flounders. The shell-fish are—different species of crabs, the small pearl oyster, muscles, cockles of an immense size, wilkes, periwinkles, a great variety of edible limpets, and the cuttle fish.

The birds that I observed were—two species of geese ; one termed by the Russian hunters laidenoi. These appeared on the 31st August, two days after our arrival, and wintered here. The head, neck, and breast, are white ; it has a large black spot on the throat ; back, wings, and tail, ash colour ; the extremity of the feathers barred with a black streak edged with white ; bill
and

and legs yellow; claws black. They remained here until the 18th April, and on the 19th the other species arrived, which I have described at Kadiak, where we obtained some: these depart about the 30th of August. Toward the latter end of September a few of the snow-buntings came, but only stayed a few days.

The *safka*, a kind of duck very frequent in Kamtschatka, made its appearance at the beginning of October, and wintered. The 12th November we saw the turpan of Ochotsk; but these stayed only a few days, and were in very poor condition. There is also a species of bunting with a red head and breast; but of these I saw only two or three; they are much sought after by the natives, who ornament the strings to their darts and dresses with the red feathers: also a bird as small as a wren, which emits a delightful note: these and the *safka*, indeed, are the only melodious birds on the island. Here are also a few partridges, teals (*tshirok*), cormorants (*urili*), awks (*ari*), sea parrots (*toporki*), and gulls (*tshaiki*). A very large species of the gull kind was killed by a party collecting drift-wood in the beginning of April. They had retired to a cave to refresh themselves, when this bird, pursued by an eagle, took refuge among them. The wing had three joints, one more than I ever saw in any other bird. The Russians call them *Semi Sazhenoi* (seven fathom), from the extreme length of their expanded wings. They are frequently seen, but the natives have never found their nests or eggs. When picked, it appeared very like a large turkey, and, to our depraved tastes, was not inferior in quality when dressed. Eagles are numerous, as are also the glupysh, which I take to be Pennant's foolish guillemot.

The only animals that I saw were foxes and mice; the latter, I observed, generally chose the southern side of the mountains for their burrowing places, and the fresh ground thrown up by them were the spots from which I collected the wild cresses.

The morning of the 1st of April 1792 being clear, I roved about the south side of the mountains to enjoy the sun, which we had not seen ten times since our arrival on this island. During my walk, I saw, at the entrance to one of the mouseholes, a considerable quantity of edible roots: these consisted of makarshine, farana, and another root unknown to me, about the size of a coffee bean (but few of them): the quantity might be about ten pounds weight, thus brought into the sun to dry by the mice, more provident than the human part of the inhabitants of this island. I also noticed, for the first time, that the sweet plant of Kamtschatka, the kutagernik, or wild angelica, the broad-leaved sorrel, and kiprey, were breaking through the earth. The other productions of the island are, the ground willow, already described (but not a single tree of any denomination whatever, nor does any of the islands west of Kadiak produce a tree of any kind: this I can positively assert); two berry-bearing bushes, the tshernika and golubnika, about eighteen inches high, on the southern side of the mountains, and in such places as are sheltered from the north winds; the mountains also produce the shikshu, or siecha, and wortle-berry. The vallies yield raspberries, white, large, and of a watery taste. The edible roots are, farana, makarshina, and the root of the lupin; this plant bears a more beautiful flower than in Europe: the kutagernik is sometimes used for food, mixed with fish spawn, I believe on account of its bitter flavour. Wild mustard was plenty about the old habitations.

tions. The grass is coarse and rushy; I am inclined, however, to think its quality succulent; for it appears to me of the same kind as grows about the harbour of St. Peter and St. Paul in Kamtschatka, of which the cattle are very fond, and it fattens them extremely. The soil is not deep, but black and fine, unmixed with clay or loam. It was with great difficulty that we procured, near the source of a rivulet, a sufficient quantity of clay to use as cement to our ovens, built with the stones collected on the seashore. Here are no rivers; but several rivulets, or small rills of water, run into the sea. There are two extinguished volcanoes on this island; and near one of these there was formerly a hot spring, but it is now buried under stones fallen from the mountain, which produces abundance of native sulphur. Earthquakes are frequent, and, by the account of the natives, sometimes very violent.

The sea produces, beside the fish already mentioned, whales, grampusses (kofatki), porpoises (fwinki), the sea lion (sivutsha), and the ursine seal (kotic); the two latter used to pass this island in great herds late in the autumn; but they have not appeared the two last years, which I attribute to the havock made among them by the hunters on the islands discovered by Pribiloff to the north of Oonalashka. Sea otters are almost forgotten here; but they sometimes appear on the rocky islands off Atcha.

I shall now return to our society. We had but little to do during the present year. Our foraging parties met with very ill success, although they were of material assistance with the little fire wood that they obtained. They could not shoot any game, which I ascribe to their being too numerous and noisy: for I was successful when I went out alone, but found the wild fowl exceedingly shy. We experienced a constant succession of mists

and fogs; sometimes during the night the stars appeared; we had frequent gales of wind, and very strong, and encountered one hurricane, which, probably owing to the surrounding lofty mountains, acted like a whirlwind upon our vessels, carried the Black Eagle on shore, and, catching the Slava Russia, all her cables parted like pack-thread at one instant; but, notwithstanding she was at the mercy of the gale, and in great motion in the eddy of the wind, its opposite currents only drove her a short distance along the basin, and back again. We expected her every moment on the rocks; the violence of the hurricane, however, abated, and we again got her to the old moorings, without having received any damage. Several of our men were laid up with the scurvy towards the end of the year, and we buried one young man, whose death was occasioned by this disorder; he had resided on shore from the time of our arrival.

CHAP. XIX.

Deplorable state of the Party under the Effects of the Scurvy.—Attention and Services of the Natives.—Sketch of the Religious Notions, Government, Arts, Manners, &c. of the Natives of the Aleutan Islands.—Mode in which the Russian Hunters carry on their Concerns.—Quit the Island, and arrive at St. Peter and St. Paul.—Find there the Alcyon, Captain Barkley, from Bengal, who, though having on board Articles of the first Necessity, which he offered at a very low Price, was forced to return without having disposed of any.—Reflections of the Author on Ventures of this kind.—Better Success of a former Adventurer, Captain William Peters, in 1786.

THE year 1792 had commenced with the most inauspicious prospects that the imagination can conceive: except myself, I believe, every one of our Company was affected more or less with the scurvy; some without any other outward marks than a fallow complexion, accompanied with shortness of breath, and an extreme lassitude of the whole frame, which prevented their taking ordinary exercise, or even walking far; some had small livid pimples all over the body, particularly about the legs, with soreness and violent itching; some had large livid blotches on their legs, arms, and other parts of the body; some were bloated all over, and almost all had their gums swollen to such a degree, that they nearly hid their teeth. Thus situated, it was with difficulty that we could muster able hands enough to hoist a cask of water on board.

The natives exerted themselves to procure fish ; and, when the weather prevented their aquatic excursions, they collected bundles of willows for firing. The business allotted to me was, the receiving of tribute from the Aleutans, distributing presents, and giving returns for whatever they brought us. When not employed about this business, I was strolling over the mountains gathering cresses, or at low water along the sea-shore, fishing among the rocks, or getting limpets, muscles, &c. The birds were so shy, that I could but seldom succeed in shooting any. I was always alone ; for, though several gentlemen frequently attempted to walk with me, they very soon became tired, and returned, leaving me to pursue my solitary perambulation.

The prospect before us grew more melancholy as the season for our departure advanced. More than three-fourths of our Company were confined to their hammocks by the scurvy ; but our Surgeon, Allegretti, was among the number of those who, with the assistance of crutches, were enabled to move from place to place ; and he, with Mr. Bakulin, was taken into our hut. Notwithstanding every possible method was adopted by our surgeons to check this disorder, it raged with unabated violence ; and, toward the latter end of the month of February, we sometimes buried three men in one day ; and the most athletic in appearance were the earliest victims. It was equally destructive to those who dwelt on shore, as to those whose birth was on board ship. At this time we began to doubt the possibility of ever leaving the island. I still continued my walks, but found some difficulty in rambling over the mountains : it certainly fatigued me more than usual ; but I did not on that account shorten my excursions.

Early

Early in the month of March, the wind, which had hitherto blown from the northern quarters, veered to the southward; although rainy and misty weather continued during the day, the fogs were less, and the nights more clear. We now observed, to our inexpressible joy, that the mortality ceased; that those who were violently afflicted with the scurvy did not get worse, and that no more were laid up; and, soon after, appearances indicated returning health. The inhabitants of the island, with the natives who brought us their tribute, also supplied us with abundance of halibut and cod; the wild mustard growing about the habitations was gathered, and distributed to the different messes; and we again revived, in hopes of better days than this island could afford.

During the winter, I had frequent opportunities of reading my vocabulary (taken in 1790 in the island Sithanak) to the natives, who understood every word; and, therefore, I think I may venture to pronounce it pretty correct: on all the Aleutan islands the *th* is pronounced exactly as in England.

Of their religion I am not able to give so particular an account as I could wish, owing to their extreme superstition; for they believe, that the kugahs, or demons, of the Russians are more powerful than theirs; and that, ever since these visitors came among them, they have been subjected to the greatest slavery and distress; that if they have only mentioned their real name, it has been a sufficient means to lead to their discovery and torment. “Some of us have even adopted their method of worship*, in hopes of soliciting the protection of their kugahs, but without

* I have here taken the very words of the Aleute interpreter Elifey, who was christened; to which ceremony he alludes.

“ producing

"producing any salutary effects." The natives imagine, that the curiosity which their visitors expressed of seeing every ceremony was merely with a view of insulting their kugahs, and inducing them to withdraw their protection; by which means they suppose them to have succeeded in compelling submission. The want of employment for their minds increases their superstition, and they carefully avoid discovering their magicians, or explaining any meaning in their ceremonies. They still observe their annual dance in masks, and with painted faces; the masks are called kugahs; and I discovered, that some particular ornaments of their dress used upon this occasion were regarded as charms, having power to prevent any fatal accidents, either in the chase or in their wars; but in the latter they now never engage. We were informed that the greater part of the inhabitants of Sithanah had been victims to illness shortly after we left the island in 1790.

According to the best intelligence that I could obtain of the population of all the Aleutan islands, the number of males (including children) does not exceed eleven hundred, of which number about five hundred of the most active are employed by different parties of Russian promyshleniki, or hunters. Formerly, one village on this island contained more than the above number. At that time they had one chief presiding over the whole island, whom they called Kikagadogok, being chosen by the natives from among the Tokok * or Dogok, chiefs of villages (for it is pronounced both ways at different islands). The rest are vassals, distinguished by the name of Talha. They say, that

* I have observed, that the chiefs of villages are called by some of the Russians Tookoo; by others Toyon. Whence they obtained the name of Tookoo I know not; but Toyon, or Toigon, is the proper Yakut name for Chief.



Drawn by W. Alexander.

Engraved by W. Cooke.

*Masks used by the Conalashkans in their Dances, with the Darts used by the same people,
and the two sides of the board from which they are thrown.*

mankind were the offspring of dogs by the command of Aghuguk ; and that all of them came from the west, where they suppose there exists an immense and very populous country.

Although they formerly had places wherein to deposit the produce of the chase, they never were accustomed to lay in a stock for the winter ; for they only preserved their food until it came to their turn to feast. As, however, at that time, the islands were populous, and their villages extensive, this method was nearly the same thing ; for the different villages visited each other in regular rotation, and were guests until the whole quantity that they had collected was exhausted, which was not till their fishing season re-commenced, when their magicians and the kikaga-dogok were consulted, and commenced their incantations for new success in the ensuing season, assuring their kugahs that nothing had been wasted of their former bounty.

They fish with bone hooks. The lines are either a remarkable species of sea-weed * seventy fathom long, or the fins of whales cut very thin and even †. Their darts for animals are coloured, some red and others black ; for they have different coloured paints, or earths, which they mix with oils of fish ; as white, blue, red, and black. These they obtain from a mountain near the village Amada ; but where that is situated I know not.

The capacity of the natives of these islands infinitely surpasses every idea that I had formed of the abilities of savages. The or-

* A specimen of which is now in the possession of Doctor Rogers, with several other Aleutan curiosities.

† The natives, when fishing for halibut in 70 or 80 fathom water, frequently haul up with the line beautiful white sticks and their roots. These are from six to eight feet long, very thin, and without bark or branch. When first taken out of the water they are as elastic as whalebone ; but, when kept a considerable length of time, they resemble white coral, and are brittle.

der established among them, and their subordination to such chiefs as they have selected for their rulers, certainly originate from principles of adoration which they possess for an existing invisible Superiority, and govern their conduct with that propriety which seems most likely to attain security and protection, both in this world and in the next; for they firmly believe in another world, and imagine that such as live in conformity to the will of Aghuguk will there obtain all necessaries with little trouble, and not be under the control of the kugah. Their behaviour, therefore, is not rude and barbarous, but mild, polite, and hospitable. At the same time, the beauty, proportion, and art with which they make their boats, instruments, and apparel, evince that they by no means deserve to be termed stupid; an epithet so liberally bestowed upon those whom Europeans call savages. It is much to be lamented, that they are under the sway of the roving hunters, who are infinitely more savage than any tribes that I have hitherto met with; nor do I see any means of checking their outrages; for the authority of government can never reach these distant regions: the only prospect of relief appears to me to consist in the total extirpation of the animals of the chase; and I think I may venture to say, from the daily havock made among them, that a very few years will serve to complete this business.

As I have so frequently mentioned the hunters, a succinct account of their proceedings may perhaps not prove uninteresting to my readers.

Their galliots are constructed at Ochotsk, or at Neizshni Kamtschatka; and government, with a view of encouraging trade, have ordered the commandants of those places to afford as much assistance as they can to the adventurers; beside which, the materials
of

of the very frequently wrecked transport vessels, though lost to government, are found the chief means of fitting out such an enterprise, and greatly lessen the expence. The sailors agree to the distribution of so many pairs (shares) among them, in lieu of wages: thus their vessels are procured and manned. The cargo consists of about five hundred weight of tobacco; one hundred weight of glass beads; perhaps a dozen spare hatchets, and a few superfluous knives of very bad quality; an immense number of *kleptsi* (traps for foxes), and a small stock of provision, consisting of a few hams, a little rancid butter, a few bags of rye and wheat flour for holidays (for they do not make a practice of eating bread every day), and a considerable quantity of dried and salted salmon. They are also supplied with a few rifle-barreled guns, and a quantity of ammunition, for their defence against the natives.

Being thus equipped, with ("Bozshe Pomotsh") God's help they go to sea. Upon their arrival at any of the inhabited Aleutan islands, they formerly used to take a number of women and a few men as hostages; but now they take possession of the village, and, after hauling their vessel on shore, distribute their *kleptsi* to the natives to catch foxes, and send out parties to collect furs, to fish, and to chase sea animals. Some of the hunters go to the contiguous islands, and exact the same obedience from all, while they themselves live in indolence and ease. The articles of trade, as they call them, are given in small quantities to the women, to secure their attachment; and the men are sometimes rewarded for a hard day's work with a leaf of tobacco.

Ever since Shelikoff formed his establishment at Kadiak, no other companies have dared venture to the east of Shumagin's island.

island. I am inclined to think that Suchanin's vessel will be the last that will attempt to visit these islands for furs; and probably he will obtain hardly any other than foxes', which are still here in considerable numbers, and even resort to the villages in cold nights in quest of prey.

Shelikoff has formed a project to obtain the sole privilege of carrying on this trade without a rival; and he will probably, one day or other, succeed; but not before the scarcity of furs lessens the value of this trade, and renders a fresh capital necessary for making new excursions to discover other sources of commerce, or rather of wealth; then the directors of the present concern will explore the regions of America; and, if nothing advantageous occurs, they will, doubtless, retire from the concern, secure in their possessions, and leave the new members to pursue the undertaking.

During the month of March the scurvy seemed perfectly at a stand, neither increasing nor diminishing materially upon the afflicted; but early in April, when the new plants produced a supply of vegetables, those sick who had used crutches were enabled to relinquish them, and willingly gave them up to such as began to creep out of their hammocks. The weather, though it continued hazy, was drier than it had been ever since our arrival.

We now began making preparations to leave this fatal island; when we discovered that our sails, cordage, and rigging of every kind, had suffered from the climate as much as our ship's company; every thing was quite rotten, and our vessels very foul. Captain Hall, who had now the command, took charge of the *Slava Rossie*, and Captain Saretshoff went to the *Black Eagle*.

Notwithstanding every individual exerted himself to the utmost of his abilities, however, we were not ready to depart before the middle of May.

We had received, as tribute from about five hundred of the natives of the Aleutan islands, a dozen sea otters' skins, and of fox skins, I believe, near six hundred of different sorts; in return for which, we had distributed all our trinkets and tobacco. The extreme poverty of this place prevented our obtaining any articles of value for ourselves: we procured, indeed, a few curiosities, but nothing else.

On the 16th of May our vessels were hauled into the outer bay. We were now elated at the prospect of once more revisiting Kamtschatka, after the melancholy sensations that we had endured for eight months and sixteen days, passed in one continual state of anxiety upon this island, the grave of seventeen of our stoutest hands; where, during the whole of our stay, we had only been cheered eighteen times with the sight of the sun, and never experienced one clear day. On the 17th we sailed out of the Bay of Amoknak, and the same day saw the very remarkable solitary rock, resembling a pillar, situated about 30 miles north of the eastern point of Oomnak.

Nothing remarkable happened during our passage to Kamtschatka. We lost sight of the Black Eagle the 7th of June; and on the same day saw an island, which we took for Semi Sopochni, burning in several places, particularly toward the southern extremity. On the 16th, after encountering a few contrary gales and baffling calms, we arrived in the bay of Avatsha, in a very thick fog (which fell upon us at the mouth of the bay), and came

to

to anchor near the entrance into the inner harbour of St. Peter and St. Paul, without being able to see any land *.

Notwithstanding we were as silent as possible on board, with a view of surprising the inhabitants when the weather became a little clear, we had not lain long before we heard a boat rowing towards the vessel; and were shortly after amazed at seeing an English pinnace coming along-side, with Captain Charles William Barkley in it, whose vessel, the *Alcyon*, from Bengal, was at anchor in the inner harbour on a trading voyage. His cargo consisted of articles that were invaluable in this part of the world; particularly in a port so eligibly situated for encouraging commercial undertakings; namely, iron in bars, anchors, cables, and cordage, with various kinds of ironmongery wares, and a considerable stock of rum. Notwithstanding this, the commander of the port having neither authority nor resolution to secure a purchase for account of government; and the traders of this peninsula (who stile themselves merchants) being merely a set of roving pedlars, without either capital or credit (and, what is still worse, without principles to secure either); Captain Barkley was necessitated to take these articles back again, although they were offered at less than one third of the charges of transporting such commodities from the manufactories in Siberia.

A man who has resolution to strike out a new line of commerce, or rather to seek a new source of trade, in parts of the world so little known as are these regions, at the same time unacquainted with the language and with the wants of the inhabitants, is rather threatened with loss, than flattered with prospects of profit,

* Captain Saretshoff, in the *Black Eagle*, arrived on the 19th.

in the first attempt; and nothing short of enthusiastic hope of future advantages can compensate for the degree of anxiety that he must suffer. Such a man, most certainly, merits all the encouragement that the government can give him, which is sure to be eventually benefited by his success. Considering these circumstances, and that the two vessels employed in our expedition were in the greatest need of entire new rigging, anchors, &c. the present favourable opportunity of serving Captain Barkley by clearing his ship was a secondary consideration, compared to the advantages which government would have derived from so valuable an acquisition of the most necessary articles that the port could possess. This I represented to the governor of the port, and to the commanding officers of our expedition; but both equally feared to act without positive orders. In other respects, however, we gave him all the assistance in our power. Captain Barkley was accompanied by his lady, and a son of about seven years old. Their behaviour was very polite, and particularly pleasing to us. I lament that we were not able to make them equal returns, but flatter myself that they were satisfied with our endeavours. The extreme poverty of the place, and the miserable situation that we were in, must have been sufficient in their eyes to prove an excuse for us. They left this place the 1st July O. S.

Captain William Peters, who arrived here on the 9th August 1786, was more fortunate in the disposal of his cargo, owing to a mere accident that befel the only man in this part of the world who had a capital and an established credit in Moscow, which capacitated him to become a purchaser: I mean Gregory Shelikoff, who sailed the 22d May of the same year from his establishment in Kadiak for the port of Ochotsk, with a cargo of furs. Contrary winds prevented his arrival at the Kuril islands till the 30th July, which

which also detained him here eight days. Still continuing westerly, he resolved to steer for the bay of Tshékafkoi, at the estuary of the Bolshoia Reka, on the west side of Kamtschatka, to purchase a supply of fresh fish. When he arrived off this place he cast anchor, and went on shore with the ship's boat, which he immediately sent back again. Having purchased fish, his intention was, to return to the vessel; but a sudden squall drove her out to sea; and, as the crew were all ill of the scurvy, Shelikoff concluded that they would make the best of their way to Ochotsk. He himself went to Bolshoietsk, where he arrived on the 15th August, and bought three horses to travel by land to Ochotsk. While he was there, intelligence was received of the arrival of an English ship at the harbour of St. Peter and St. Paul, for which place he immediately set out. He arrived on the 23d of the same month, and was well received by the English; for his own account is as follows:

“ When the English observed my arrival, some of them immediately came on shore in their boat. The captain and two officers met us in a very friendly manner, and invited us to go on board their vessel, where they shewed me samples of their goods, and said that they had letters from the East India Company to the commander of Kamtschatka, in which the company expressed a desire of opening a trade with Russia, and requested permission. I endeavoured to discover whence they came, and the course that they had steered; for they did not conceal their charts from me. I heard that they were from Bengal, which place they left, according to our stile, on the 20th March; sailed the 16th April from Malacca; arrived the 29th May at Canton; left it the 28th July, and arrived here the 9th August. They were three officers and a Portuguese. The crew consisted

“ ed of Englishmen, Indians, Arabs, and Chinese: in all, 70.
“ The vessel was built entirely of mahogany, had two masts and
“ twenty-eight sails; was sheathed with copper to the gunnel,
“ and mounted twelve guns.

“ After supper, Captain Peters with his officers conducted me
“ on shore; but we deferred trading till the arrival of the com-
“ mander of Kamtschatka, Baron Von Steinheil, who came on
“ the 25th, and acted as interpreter, speaking the French lan-
“ guage. They bound themselves to pay duty, according to the
“ claims of government; I gave them a list of articles wanted
“ here, for their future government; purchased goods to the
“ amount of 6611 rubles; paid in part 1000 rubles, and gave
“ bills upon Mosco at two months' sight, bearing interest till paid,
“ at the rate of six *per cent*. On the 3d September I took leave
“ of the Englishmen, who intended to sail the next day. On
“ the 8th I arrived with my goods at Bolsheiretsk, where I im-
“ mediately sold the whole for upwards of 10,000 rubles in
“ ready money.”

Captain Peters was afterwards wrecked upon Bering's island, and only two of the crew saved (a Portuguese and a Lascar). These travelled with me in the Autumn of 1788 from Ochotsk to Yakutsk, in their way to St. Petersburg. The Portuguese told me, that Captain Peters wanted to load his ship with copper, which he had a notion that he might collect at Bering's or Copper island. In all probability he was misled by the exaggerated accounts of the quantities of copper found upon those islands.

C H A P. XX.

A Part of the Company sail, under Captains Hall and Saretsheff, for Ochotsk.—Intelligence received from Captain Billings and his Party.—Letter from Mr. Main to the Author, giving a brief Sketch of their sufferings.—An alarming Earthquake.—La Flavia, a French Ship, arrives with spirituous Liquors and other Articles.

THE impossibility of entering the port of Ochotsk with our large vessel compelled us to take the resolution of laying her up in Kamtschatka, and waiting (for our deliverance) the arrival of the transport-vessel with the annual supply of provision for the peninsula. As, however, our company was too numerous to embark in one of these galliots, Captains Hall and Saretsheff determined to sail with as many as they could take on board the Tshernoi Orel. They were ready early in the month of July; but easterly winds prevented their departure until towards the latter end of the month, when they set sail with an intention of exploring the Kuril islands and the coast of China to Ochotsk *.

Shortly after their departure, we received intelligence from Captain Billings, of his safe arrival at the river Angarka, after encountering the greatest difficulties, and suffering innumerable

* They were prevented executing this undertaking by contrary winds, which detained them at the Kuril islands till late in August, when they thought it more advisable to sail direct for Ochotsk.

hardships from the Tshutski. I received a letter from Mr. Main, of which the following is a copy :

“ DEAR SAUER,

“ I should think it a species of ingratitude to let slip an opportunity of writing to you, to inform you of our safe arrival at the river Angarka * on the 15th instant, after undergoing every thing that is bad during the space of six months and two days ; suffering by the most violent frosts, without shelter from the bleak north winds ; owing to this barren country not producing the least bit of wood, except when we fell in with rivers that afforded on their borders some creeping willows. We were therefore obliged to put up with the frozen meat of deer, and whales and sea-horse flesh, raw ; and even with these the Tshutski fed us very scantily, not only almost starving us, but at the same time robbing us daily before our faces. They also formed two plots, at different places, to murder the Captain and our whole party ; but God Almighty prevented their laying violent hands upon us ; and we have great reason to thank our Maker that we are now quite out of their power, and getting ready to set out for the Lower Kovima, for which place we depart to-morrow morning, accompanied by Mr. Bander †, whom we found here waiting the arrival of the Tshutski.

* The river Angarka is of no great extent. It commences near the source of the river Tshaoon, or Tshaun ; and, taking a contrary direction, flows into the Suchoi Annui, the latter discharging itself into the Kovima, opposite the village of Neizhni.

† Mr. Bander is the Ispravnik, or Captain of the district of Zashiversk. His business on the Angarka was to collect tribute from the Tshutski. This gentleman's name has occurred frequently in the former part of this work ; but, having always mentioned it from memory, I have been led into a mistake, in spelling it Bonnar, instead of Bander.

" I assure you, that I very often cursed the hour wherein I left the Slava Rossie, having been obliged ever since that time to bear with patience the abuses of the wildest of savages, and expecting death daily.

" I have a great deal to communicate, but must delay it till a future day, being too much confused at present with the business of packing up, and joy at seeing our old acquaintance Mr. Bander, who travels at all times with a great stock of good things; and, as we have had no spirits now for these six months, a little drop makes us very merry. Let me, therefore, conclude with assuring you, that I remain ever,

" DEAR SAUER,

" Your sincere friend,

" JOHN MAIN.

" The River Angarka,
21st February 1792."

Several other letters mentioned that the Tshutski had destroyed their measuring lines, and their writing materials, and absolutely prohibited the taking of any notes, or making remarks; which, however, without these violent restrictions, was rendered impossible by the severe frost and driven snow, which completely prevented their observing the lakes from the land; and as they did not approach the sea-shore any where, except the Bays of Melshikma and Klutshenie* (the latter was frozen at the time, and from hence their course was west to the Angarka), they had not obtained any knowledge from their own observations of the situation of Shalatskoi Promontory, the Tshaun Bay, or the direction of the coast of the Icy Sea between the eastern promontory and

* The mouth of this bay is at Captain Cook's Cape North.

the farthest place observed in 1787, in our excursion to the Icy Sea; namely, 30 miles east of Barannoi Kamen, the cape called by Shalauoff Pefoshnoi Muys.

The letters mentioned, that Captain Billings's intentions were to go immediately to Yakutsk. He also desired, in his papers to the Command, that I would make all possible haste to join him at the above-mentioned place.

We were in daily expectation of the arrival of the transport vessel; and our Company consisted of

Capt. Bering,	} of the Expedition;
Mr. Bakoff,	
Bakulin,	
Robeck,	
And myself,	

besides the commander of the harbour, Major Schmaleff, and his Assistant Ensign Rostergueff. All the rest of our neighbours were petty officers, sailors, and Cossacs.

As my business did not confine me to the harbour of St. Peter and St. Paul, I resided chiefly at Paratounka, and made frequent excursions on the chase with the Kamtshadals, sometimes for eight or ten days together, in the woods, and roving about the mountains at no great distance south of the Bay of Avatsha. I saw bears in great numbers, wolves, foxes, and a few deer; but could only kill the former, as we had no dogs with us to run the other animals down. Hares also were in great plenty, but extremely shy.

On the 11th August, in the harbour of St. Peter and St. Paul, I observed a number of swallows flying about, apparently much frightened.

frightened. They were red breasted, a species never remembered to have been seen here; and the inhabitants immediately predicted some remarkable event; they were, however, only seen during the morning. The next morning, about five o'clock, we were alarmed by a violent shock of an earthquake, preceded by a rumbling noise, little short of thunder. The motion of the earth was undulatory for nearly the space of a minute. I was dressing myself, and was thrown down, which induced me to get out of the house as quickly as possible. The water in the bay was agitated like a boiling cauldron. The shock came from the north-east, and appeared to me to continue upwards of two minutes; but other gentlemen were of opinion that it did not last more than one. A sailor, one of the watchmen on board the ship, was thrown out of his hammock. At Paratounca it was more violent; the earth opened in many places, and water and sand were thrown up to a considerable height; all the buildings in the village were more or less damaged; one balagan was thrown down; some of the ovens (the only brick-work about the buildings) were also shaken in; and all the paintings, &c. in the church, except Captain Clerke's escutcheon, were thrown from their fastenings.

At Neizhni Kamtschatka the inhabitants were extremely terrified; nor could they explain whether the noise or the shock preceded. The situation of the town is on a neck of land formed by the discharge of the Raduga, a considerable river, into the Kamtschatka; the bed of the former was dry, and the inhabitants ran across it toward the mountains. They, as well as the cattle, were thrown down; and the continuance of the trembling was, according to their account, near an hour; the earth opened in many places, and sunk considerably in some. The volcano Klutsheskoï

shefskoi emitted a vast column of black smoke ; a noise like thunder seemed to issue from the bowels of the earth ; the bells of the two churches rang violently ; and the howling of the dogs, and screams of the people, surpassed all description, for the latter expected every moment to see the complete destruction of the town. But when the shock was over, the lost water of the river resumed its former channel, and the inhabitants returned to their dwellings. Not a single brick chimney or oven was left standing. The altar of one of the churches * was separated from it about a foot, inclining a contrary way ; and the greater part of the balagans were thrown down.

It is remarkable, that the inhabitants of the village at the foot of the burning mountain only heard the noise, and did not feel the shock ; nor did it cross the mountains to the western shores of the peninsula.

Dispatches from St. Petersburg to the commander of the port announced the departure from France of a Russian subject of the name of Torckler on board his own vessel, with a view of supplying these distant parts of the world with provision and every other necessary, and recommended the governor's assistance to the said Torckler. Towards the latter end of the month of September the vessel arrived, a fine new ship of about six hundred tons, copper-bottomed, and called La Flavia. Her crew consisted

* Churches and houses throughout Russia, in all small towns and villages, are built of timber ; the spars laid on one another ; the ends notched to admit of their lying close together, and the interstices filled with moss. The altars are detached spars at the eastern extremity of the church, built as close to its body as possible. The top of the belfry at Neizhni inclines in one direction more than three feet over the foundation of the building. It is about 40 feet high ; and I think that the joists at the end of the spars are the only means of preventing its fall.

of, I believe, sixty men, beside officers. She carried the new French flag, and the officers wore the tri-coloured cockade. Mr. Torckler was the supercargo only; the greater part of the cargo consisted of spirituous liquors; and the captain and officers were in every respect gentlemen and men of science. About the time when this ship arrived, we were informed that the transport vessel from Ochotsk was driven on shore near the river Itsha, between Bolshoi-retsk and Tigil. Captain Bering and Mr. Bakoff, therefore, went to that vessel to see if they could afford her any assistance; and I received the charge of the sailors, &c. here.

The Peninsula of Kamtschatka described.

I shall commence my description at the southern extremity, which the Russians call the Lopatka, latitude 51° , longitude $156^{\circ} 40'$, east from Greenwich; a low point of land, widening and rising gradually into mountains, barren and rocky, only producing here and there the creeping cedar and willow, to the extent of 40 miles. Birch trees then appear in the inconsiderable vallies, which are replete with lakes and runs of water rushing into the sea both east and west. A cluster of mountains occupy the whole space from the Lopatka to latitude $53^{\circ} 5'$, where, in the neighbourhood of the village Malka, they divide into two branches, one trending north north-west; the other, which may be called the principal chain, leads north north-east. The place where the mountains separate is the highest land on the peninsula, and forms a barren stony desert of 65 miles in length, in a direction north and south, and from 3 to 15 in width, producing in detached spots brush-wood, willows, and a very few scattered and stunted birch-trees. It is replete with springs and

brooks ;

brooks ; some of which uniting, and flowing south and south-west, form the Bistrea ; while others, at only a few fathoms distance, take an opposite course, and are the sources of the river Kamtschatka. At the end of this desert, the mountains close within a mile or two, and a forest of birch-trees follows to the village Apoushinsk, where the river Kamtschatka is navigable for small boats to its discharge.

From this place the face of the country assumes the appearance of extreme fertility. The valley widens, and the space between the mountains east and west is at Virchni Kamtschatka 40 miles. The soil is deep and rich, composed of black earth, mixed with fine black ashes from the burning mountains, and fine iron sand, which adheres to a magnet, and forges well with bar-iron, but used alone is very brittle.

The productions of nature are, a small kind of wild black cherry (tsheromka), in great abundance ; the wood of which, being particularly hard, is used by the Kamtschadals for their guiding sticks to the sledges : the thickest trees that I have seen are nine or ten inches in circumference. Firs, common pine and larch trees of extraordinary size, with birch, poplar, asp, and mountain-ash, clothe the mountains to their summit. The underwoods are, currant, dog-rose, hawthorn, alder, and bushes producing berries.

The climate is very different from that of the southern and northern parts of the peninsula, the valley being completely sheltered from the sea-breezes that chill the air in other parts, and prove a great check to vegetation, which commences here in the month of March. The scenery is beautiful beyond description,
the

the river meandering through the midst of the valley, from 50 to 250 yards wide, and from eight to 15 feet deep, and being replete with trout and every species of salmon in the season. This valley is 180 miles in length, frequently opening prospects of the Tolbatshinsk, a lofty double-headed mountain, constantly emitting an immense column of black smoke; while the second volcano, Klutsheskoi, towering to an incredible height, illuminates the clouds with its blaze, and affords a view awfully grand.

Twelve versts below Virchnoi Kamtschatskoi Ostrog, is the village called Milkovoi, inhabited by farmers sent from Siberia at government expence, and possessing particular emoluments, for the purpose of growing corn and pulse to supply the country. They live uncontrolled, however, and find it easier to accumulate wealth, by acting as retailers for the merchants of Kamtschatka, and going themselves on the chase for fables, &c. than in pursuing the more toilsome labour of cultivating the earth, which they neglect. Yet they keep gardens that produce very fine cabbages, potatoes, turnips, carrots, cucumbers, &c.; they also grow buck-wheat and rye for their own use, which yield abundantly; and I am inclined to think that, had they a proper inspector to superintend their business, they might with ease grow corn enough of every kind to supply not only the peninsula, but all the neighbouring country, Ochotsk, &c. Hemp grows remarkably well, which, however, I think there is no need of cultivating; for the nettle seems equally to answer every purpose. The Kamtschadals and Russians make sewing thread of it, and fabricate from it their fishing nets, which serve them, if used with caution, and properly dried, four or five years. The process of preparing it is nearly the same as that for hemp, but I think less troublesome; the nettle grows to the height of six and seven

feet ; the fibres are much finer ; and thread of equal thickness is stronger than that made of the imported hemp.

At Tolbalshinsk the mountains are broken and barren ; they encroach upon the valley, and considerably lessen its width. Storms are frequent between this volcano and that of Klutshetskoi, but never reach the neighbourhood of Milhovoi, and the trees are considerably less in size ; but the country continues fertile as far as 30 versts north of the village Klutshetskoi, which is also a colony of Siberian peasants for the same purpose as those at Milkovoi, and who act in the same manner. Their proceedings are in some respects justifiable ; for the magistracy at Neizhni exact the same payment from them as from the residentiary merchants. The court of justice consists of a burgo-master, four members, or rathmen, a secretary, writers, and watchmen ; receiving a salary for the time they are in service : and frequently an expensive deputation is sent to Tigil, Bolshoietsk, Virchni, and such places as are resorted to by these pedlars ; so that it is a matter of doubt with me, whether the culture of the earth would render any harvest sufficient to answer the payment of their claims. In some years they amount to 18 or 20 rubles, and in others half as much more.

As you approach the north, the severity of the climate increases ; the soil becomes sandy and stoney ; and the vegetable productions are stunted and weak. The isthmus is situated in latitude $59^{\circ} 20'$, and the distance from sea to sea is here about 40 miles. The widest part is from Kronotskoi Nofs to the river Itsha, about 220 miles.

I have

I have already mentioned the situation of the town Neizshnoi Kamtschatka, which contains 80 isba's, or houses, with two churches; and its number of inhabitants, including children, 548 souls; latitude $56^{\circ} 33'$.

The western coast of Kamtschatka is uniformly low and sandy, to the distance of about 25 to 30 miles inland, where the mountains commence. It produces only willow, alder, and mountain-ash, with some scattered patches of stunted birch-trees. The runs of water into the sea from the mountains, do not deserve the name of rivers (except the Bolshoia Reka), though they are all well stocked with fish from the sea in season, as trout and different species of salmon. They are generally at the distance of 15 to 20 miles from each other. The Itsha and Tigil are the most considerable; and neither of these have a course, with all the windings, of more than 100 miles.

The sea is shallow to a considerable distance; and the commanders of the transport vessels, who never lose sight of the exposed coast if they can help it, judge of their distance from land, in foggy weather, by the soundings, allowing a fathom for a mile; nor is there at the entrance into any of the rivers more than six feet at low water, with a considerable surf breaking on the sandy beach.

The villages on this coast are, Tigilsk, Itshinsk, and Bolshoi-retsk (situated on the Tigil, Itsha, and Bolshoia rivers). Of these the former is the most considerable, containing 45 wooden houses, and one church. The Russian charts place it in latitude $57^{\circ} 55'$. This, which they call a fortified town, is surrounded by wooden palisades, and was built in 1752. The number.

ber of inhabitants are 338, including women and children. Itshinsk also contains a church, and about 10 houses, with 50 inhabitants. Bolshoi-retsk contains 37 houses, and the total number of inhabitants are 235. Beside these, there are eight inconsiderable villages, containing each three or four houses, on the west coast.

The eastern coast is composed of mountains, rocks, rugged cliffs, and bold promontories, replete with inlets, and the appearance of such. Their entrance, however, is blocked up by reefs of rocks, the openings of which are only to be entered by the boats of the natives. Immense masses of stone are scattered out at sea to the distance of one, two, and three miles; some of them being only discernible by the breakers, while others tower to a considerable height. The depth of the sea varies much, and suddenly, from 30 to 90 fathoms, and more. Earthquakes are frequent, and sometimes very violent.

The only harbour for ships on the whole peninsula is the Bay of Avatsha *, which is probably the safest and most extensive in the world. I shall exert my utmost ability to describe this place; but fear that I shall scarcely be able to do it justice.

I will suppose myself approaching the coast from the south-east. When first seen, it appears strait and uniform, without bays or inlets; the land rising into moderate mountains, backed by such as are more lofty. Three of them, apparently united,

* "The term Bay, properly speaking, is rather inapplicable to a place so completely sheltered as Avatsha; but when it is considered how loose and vague some navigators have been in their denominations of certain situations of sea and land, as harbours, bays, roads, sounds, &c. we are not sufficiently warranted to exchange a popular name, for one that may perhaps seem more consistent with propriety." *Cook's last Voyage.*

are very conspicuous to the north of the Bay; the farthest, or the most western, is the highest, and is conical; the next is a volcano, distinguishable by a column of smoke issuing from its summit, which is broken; the third presents several flat tops, lowering, and trending east, from which a narrow and lofty broken and irregular point of land extends about 15 leagues, terminating in a promontory called Sheeponkoi Nofs. South of the bay are two remarkably lofty mountains; that nearest the entrance (Vilitsheskoi Sopka) is formed like a sugar loaf; the other, Apalkoi, is far inland, not so lofty, and is flat on the top. On getting well in with the land, it is high, craggy, and broken, presenting the appearance of inlets. When about the latitude of $52^{\circ} 45'$, and longitude $159^{\circ} 15'$, the entrance into the Bay of Avatsha discovers itself, bearing north-west by west; south of which, at the distance of about four miles, is a small round island, composed of high pointed rocks, called Staritschkovoi Ostrov. The north cape is a bluff head, with a light-house on the top of it, resembling a sentinel's box. From this cape eastward, to the distance of three miles, breakers are discernible over hidden rocks, which extend to the south about half a mile. Within the channel, are three detached needle rocks near the north side: on the opposite shore a single one remarkably bulky, the top of which is nearly flat. Soundings lessen from 40 to 12 fathom, over a stoney bottom; and 10 fathom in the channel, sand and mud.

The entrance is in latitude $52^{\circ} 51'$, longitude $158^{\circ} 48'$, whence Sheeponkoi Nofs bears east north-east, distant about 17 leagues. It forms a channel in a direction north north-west four miles deep; the breadth is three miles in the widest, and two in the narrowest part; both shores rocky; the summits covered with birch trees, mountain-ash, and hawthorn. Having passed this channel,

channel, you enter a most magnificent basin about 25 miles in circumference, completely land-locked, and every where (except the north-west extremity) high, and covered with trees. As we advance in the basin, commodious harbours open: to the east, Rakivinoi, about three miles deep, and three quarters of a mile wide. The south cape is a lofty perpendicular mass of stone. Shoal water over rocks extend from the shore into the bay, about 50 fathoms from south to north, which makes the entrance difficult. The north cape is a high rocky shore, with some rocks that are detached; but these are visible, and not of any extent; the depth within is from 13 to 3 fathoms.

The little harbour of St. Peter and St. Paul is to the north: its south bluff cape is extremely conspicuous; and the buildings upon the spit of land before it are clearly discernible. This harbour is in every respect convenient for giving ships all kinds of repair, as also for obtaining fire-wood and fresh water. If all its good qualities are considered, I think it may be pronounced the most convenient in the world. Six or eight ships of war might be conveniently moored in it head and stern: the only inconvenience (if it may be so called) lies in the amazing toughness of the ground; for if the anchor be heavy, and out any time, it will probably be found necessary to heave a strain on the ship to weigh it. The south of the harbour is bounded by a narrow neck of low land running out from the eastern shore in a western direction, covered with wooden houses and balagans; at the extremity of which is the entrance, 38 fathoms wide, and six and a half deep: ships may pass so close to this point of land, that a man may leap on shore. The west side is a projecting narrow mountain of moderate height trending to the south, terminating in a bluff head, upon which is a battery of three guns, and a flag.

From

From this extremity a shoal extends south about 100 fathoms. The north, which is the head of the harbour, is bounded by a valley, in which are the government magazines, barracks, and the dwelling houses of the commander and chief inhabitants. To the east, it is bounded by lofty mountains covered with wood to the very summit; namely, birch, mountain-ash, hawthorn, dwarf-cedar, rose-bushes, &c. On this side are several springs of very pellucid water rushing down the mountains into the harbour, and these are very convenient watering places.

The bay is bounded to the north-west by the extensive plains of Avatsha, where two rivers discharge themselves into it; namely, the Avatsha and Paratounca. At the estuary of the former, the Kamtshadals, who formerly resided in the harbour, have their present habitations; while the troops of the garrison possess their late dwellings.

The harbour of Tareinsk opens to the west: the entrance is about one mile in length, when it suddenly turns to the south-east, extending twelve miles in length, and three in width: the depth is from six to eight fathoms, mud and sand. A narrow neck of high land at the bottom, like an artificial partition, separates it from the sea. This harbour, although extremely convenient in its construction, is not so in its situation; as an easterly wind is absolutely necessary to bring outward bound vessels into the bay of Avatsha where it is quite contrary; besides, it is exposed to the north and north-west winds, which blow over the plains of Avatsha right into it, and keep it blocked up by ice till late in the season.

Near the mouth of this harbour, on its north-west borders, is a valley forming a plain of about one mile and a half square, well wooded with good sized birch trees: a situation which Major Behm thought the most eligible of any hereabouts for a town. North and south are lofty mountains of easy ascent, covered with trees to their summit. The valley is bounded to the west by a fresh water lake of about 15 miles in circumference, well stocked with fish all the year through; while its borders abound in different kinds of berries, farana, tsheromtsha (a kind of wild garlick), and a variety of pot herbs. This lake is the chief source of the river generally known by the name of the Paratounca, of which I shall shortly give an account, as also of the other rivers. The remains of numerous villages in the vicinity of this lake strongly indicate the former populousness of these parts; but they are at present overrun with bears, wolves, and hares.

The fish of the bay of Avatsha are, cod all the year through; thornbacks, flounders, and halibuts, as soon as the ice begins to break; whittings are caught all the winter by the boys and girls, who make a hole in the ice, lie flat upon it, and look into the water, holding in it a horse-hair noose on the end of a stick, which they get round the fish, and by these means haul them up very fast. Herrings and smelts are the first passage fish that appear (the former in immense shoals towards the latter end of April), and they remain till the beginning of June: their numbers, indeed, are incredible. In Cook's last voyage Captain King says, "The people of the Discovery surrounded such an amazing quantity (of herrings) in their seine at one time, that they were obliged to throw out a very considerable number, lest the net should be broken; and the cargo they landed was still so abundant,

“ dant, that, besides having a sufficient stock for immediate use,
“ they filled as many casks as they could conveniently spare for
“ salting; and, after sending on board the Resolution a tolerable
“ quantity for the same purpose, they left behind several bushels
“ upon the beach.”

On the 7th June, in the inner harbour of St. Peter and St. Paul, I observed, at the flood tide, a considerable number of herrings swimming round in circles of about a fathom in diameter. Seeing them continue in this particular manner, I approached very near them, and remarked, in each of the circles, one fish very close to the ground, upon the weeds, and apparently without motion. I could not account for this peculiarity in their swimming, but thought that the weeds about the herring in the middle became of a very lively yellow colour. When the tide ebbed, and left these places dry, all the weeds, stones, sticks, &c. were covered with spawn about half an inch thick, which the dogs, gulls, crows, and magpies, were devouring with great avidity. These shoals of herrings, which are pursued by seals, cod, &c. come in spring and in the autumn; there is, however, a considerable difference in their size; and I believe the spring glut are the largest fish. The natives and other inhabitants ensnare a great quantity in autumn for their dogs.

The oil extracted from herrings is very pellucid and sweet; it preserves birds' eggs all the year quite fresh and good, as does also the oil of seals, whales, &c.

Herrings no sooner disappear, than immense shoals of salmon push into the bay and up the rivers; the first is the smaller sort, called the gorbushka (or hunch-back), from a remarkable protu-

berance which distinguishes this species. They are in great perfection about four or five weeks; and are no sooner in a state of decay, than another and larger species follows. These are succeeded by other sorts, all of the salmon kind, until the end of September. I could not distinguish some sorts till they were boiled, when the paleness or redness of the flesh indicated a difference. The names of the different species are, *siomga*, *tsHAVITsha* (both very large), *gorbushka*, *kaiko*, *krasnaia* (red), and *belaia* (white). They push up the rivers, and get into the lakes, where the two latter continue all the winter, but get extremely deformed, crooked-backed, thin, and covered with red blotches; the upper jaw extends beyond the under jaw, and bends over it; the mouth is full of very large teeth, and the flesh is flabby. Here are also great varieties of crabs, sea eggs, prawns, muscles, cockles, and the small pearl oyster.

The plains of *Avatsha*, which bound the bay to the north-west, extend 18 miles from east to west, and 35 miles from north to south, producing at their northern extremity only a few patches of birch, poplar, and alders; all the rest are marshy grounds, overgrown with rushes and coarse high grass, with some spots of *oziers* and alders; the resort of myriads of water fowl, swans, geese, an amazing variety of the duck kind, and I believe every species of snipe. The river *Avatsha* runs in several branches through this plain. Towards its northern extremity are an immense number of cold springs, that form several basins of water, with small runs, uniting in a rivulet, which has a course towards the south of two miles, and empties itself into the river generally known by the name of the *Paratounca*, but which is called by the natives *Ilmitsh*; and the original *Paratounca* is the run from the springs above mentioned, opposite to the discharge of which the village of that name is situated. These springs do not
freeze

freeze in winter, during which season they are frequented by swans, geese, and several species of duck, particularly the sakka, or duck with a melodious note, which has induced me to stile it musical. Here they find an abundance of food, and the pulpy root of an aquatic plant which, in its appearance, exactly resembles the olive, but is like the chesnut in flavour: I used it as a vegetable, and thought it better than any production of the gardens: the natives call it the farana of the geese.

With regard to rivers, the Kamtschatka is the only one of any consequence. Its source I have already described: it flows nearly north to Neizhni Kamtschatka, where it turns to the east south-east about 25 miles, and empties itself into a large but shallow bay formed by the Kronotskoi and Kamtschatskoi promontories; its discharge is extremely shallow, not exceeding eight feet at high water, and the breakers are very violent with an easterly breeze. This, however, is the only navigable river on the peninsula.

The Bolshoia Reka has only a course of 20 miles. It is formed by the union of the Bystrea with the Natsheke, a little below Bolshoietsk: the former has its rise from the springs near the source of the Kamtschatka, and takes a sweep from south to west; the latter commences a little south of the village Natsheke, and flows nearly west about 100 versts: neither are navigable, though, during the spring flood, the natives sometimes venture down them in their canoes, but with great difficulty, owing to rapids, &c.

The Avatsha has also an interrupted and unnavigable course of 70 versts in a direction east south-east. The inhabitants of the village

village Koriatsk, 20 miles up this river from its discharge, pass up and down it in their canoes, hauling them over the flats.

The Ilmitsh, commonly called the Paratounca, has its rise from near the Viluitshiskoi Sopka (called in Cook's last voyage the Paratounca); and from a lake already described near the Tareinskoi harbour, it makes a circuit of 85 versts, and discharges itself into the bay of Avatsha, only three miles in a direct line from its source: it is navigable for boats all the way; but I was fourteen hours in traversing the whole of this river, from the lake, in a canoe. The villagers of Paratounca go on the chase of deer, argali, bears, &c. about the source of this river, by passing down the stream into Tareinski harbour, and hauling their canoes over the plain already mentioned into the lake. An immense number of rivulets from the mountains flow to the east into the ocean, but none of them are either remarkable, or have their banks inhabited.

Here are no lakes of any extent: the names of the principal ones are, Osernoi, about 40 miles from Cape Lopatka; Kronotskoi, 20 miles south-east of Tolbatshinski volcano; and another of less extent, situated about 40 miles north of Neizhni Kamtschatka, called Nerpitshi: the natives say that they are replete with fish; and *tradition* relates, that the fish of these lakes had two heads, or that they possessed legs; and, being sacred to some deity or demon, those who presumed to ensnare them were punished with misfortunes: some of the natives, however, seem to doubt the *truth* of this, while others still firmly believe it.



A View of the Ozernoi Hot Springs of Kamtschatka.

Hot springs are very numerous, and seem scattered all over Kamtschatka; but those in the following places are the most remarkable:

Opalski, or Osernoi, situated nearly midway between the Lopatka and Bolshoietsk, about 15 miles south of the Kamtschadal village of Yavinsk, surrounded by mountains, and at no great distance from the volcano of Opalsk. They occupy a valley of considerable extent, and are scattered to the distance of six miles, some parts of which produce detached birch trees, the sweet plant, &c.; but in general the soil is barren, composed of different coloured marl, and large stones which appear to have been scattered by eruptions of some volcano. The largest hot spring is at the foot of one of the mountains; and we heard the noise that it made at the distance of near a mile before we came to it. It is about six fathom in circumference, boiling up to a considerable height; the middle appears like a cauldron; and a piece of beef placed in it was very well boiled in a short time: all around, it bubbles up between large stones; it then divides into two streams, which descend over stones, and unite at the bottom with a small rivulet formed by the other springs to the north: they flow a little way to the south, then turn westward into the lake Osernoi. About the border of these springs, and the rivulet which they form, we observed petrified, or rather calcarified, foliage of the sweet plant, birch leaves, sticks, &c. of a beautiful whiteness; but so extremely delicate in their texture, that we could not preserve any, even in cotton; for they mouldered to dust. The Kamtschadals suppose this to be the habitation of some demon, and make a trifling offering to appease his wrath; without which, they say, he sends very dangerous storms. Our naturalist and Mr. Varonin, who ascended to these springs in 1790, experienced

a whirlwind, which tore their tent, and scattered its contents about, many of which were never found again. Ashes were scattered upon the snow about four inches deep, resembling coarse gunpowder, probably from the volcano Alaid (a solitary mountain in the sea, situated about 20 miles south-west of the Lopatka), which burns violently at this time (February 1793). It has at various intervals emitted smoke ever since 1790. The oldest inhabitant does not remember its having done so before, although tradition informs them of its violent eruptions.

Toward the source of the Bystria, near the village Malka, are hot springs, a little way up the ascent of one of the mountains, which boil out of the earth in two or three places about a foot wide. Similar springs are seen near the village Natsheke, but more extensive, and forming in their run several convenient bathing-places. These have a sulphureous smell; and the stones taken from the bottom of the openings, where the springs appear, are covered with a shining thin coat, which resembles silver at first, but gets dull and of a dark colour after it has been sometime exposed to the air: the surrounding earth, to the distance of 20 fathoms in every direction, is warm, replete with empty shells like those of snails, and a transparent glutinous substance; as also with spots of loam, whereon any thing heavy being thrown sinks immediately. South of these springs, about the distance of 30 versts, at the source of the river Natsheke, is a sandy level spot, with several hot springs, the water of which is said to be brackish.

At the distance of 12 versts from the village of Paratounca, in a direction north-west, is the discharge of a deep rivulet of warm water, called Klutshevoia, navigable for canoes three versts upwards.

wards. It springs from several hot water lakes in an extensive plain; one of which lakes is about 100 fathoms long, and 7 fathoms wide; very convenient for bathing near the shore, but the middle very deep, and extremely hot. About 20 fathoms from this is another, about 5 fathoms by 7, but excessively hot: a body of boiling water issues through a square hole in a stone at the eastern extremity; and it has a run into a cold water spring, so narrow, that you may stand with one foot in each. Ulcers, old and fresh wounds, are reputed to heal from bathing in this water. I used it for tea, but the flavour was not very agreeable, being something like that of alum. The hot springs of Shumatshik are situated 90 versts north of the bay of Avatsha, and flow into Kronotskoi Bay. There are several others, but of no note.

The following are the principal volcanoes:

Opalsk: I have described this mountain as seen from the sea. Its situation is near the hot springs; but its emission of columns of smoke is of very recent date, and they are not constant; nor has it ever been observed to blaze.—Viluitsh, or Viluitshiskoi Sopka: this seems now completely extinguished:—Avatsha, 25 miles north of the bay, constantly sends forth a body of smoke from its summit; as does also Tylbatsh, and Klutsheffskoi, or Kamtshatskoi Sopka, both situated near the river. Tylbatsh (frequently written Tolbalshinsk) is one of the mountains that constitute the eastern chain; but projects considerably towards the river. It is more lofty than the rest, and has a pointed top. A little way down it, a sharp ridge stretches away to the north; from this ridge, and the side of the mountain where it joins, the smoke issues. I have observed, in a clear night, a reflection over it, resembling the Aurora Borealis. Klutsheffskoi volcano may be reckoned among

the highest peaks, I believe, in the world. It is situated 175 miles west of Bering's island, from which, however, it is distinctly seen in clear weather at the time of the sun's setting: at least, I am assured of this by several Kamtschadals who have been on the island. This volcano is frequently subject to eruptions: in 1789, on the 20th November, a great noise preceded an earthquake; flames burst forth, with discharges of small stones and ashes: the trembling of the earth and the noise continued, more or less, till the 23d, when it abated considerably; but on the 15th February 1790, it again resumed its former violence until the 21st: all this time earthquakes were felt two or three times in the course of every 24 hours.—Shevelutsh is 80 versts north of Klutsheskoï: this burnt formerly; but now it seldom happens that smoke issues from it: this volcano is the source of two rivulets, the Iltshutsh and Bakus, both of which flow into the Kamtschatka.

The number of inhabitants may be stated as follows, men, women, and children:

At the town (Neizhnoi)	-	-	548
Ostrog Tigil	-	-	338
Virchnoi	-	-	226
Bolshoïretsk	-	-	235
And at the harbour of St. Peter and St. Paul	-	-	85
Colonists	-	-	255
Russians	-	-	1687
Kamtschadals	-	-	1053
Total	-	-	2740

Of the natives 351 males only pay tribute, or, rather, are living on the list of those who are tributary, according to the revision made

made during the government of Mr. Reinikin, who succeeded Major Behm. The revisor (in 1784), by some unaccountable mistake, has frequently noted the name of one and the same person as the inhabitant of two or three villages; and from each village the tribute is exacted for this man. They have made repeated remonstrances, but in vain: this imposition, however, is the least of their sufferings. They are compelled to pass the greater part of their time in procuring necessaries for their visitors. The governor makes his annual circuit round the peninsula, and receives a present from every individual; the captain of the district goes his rounds twice; different deputations from the courts of justice, soldiers on furlough, couriers, &c. all travel at the expence of the poor native, who is compelled to keep an extraordinary number of dogs for their conveyance. Government horses are quartered at each village, and the inhabitants must provide a stock of hay for them. Thus the Kamtschadal scarcely finds time to collect a supply of food in the fishing season for his own family.

In 1768 the small-pox carried off 5368 of the inhabitants; and since the departure of Major Behm, the court of the interior (Zemskoi Sud) has discovered, that the Kamtschadals are indebted to government the whole tribute for the unfortunate sufferers by that disorder, and lay claims at present for the debt. The natives produce receipts; but are told, that an ukase from Irkutsk claims the payment. They appointed a delegate to lay their grievances at the feet of their sovereign; he, however, only reached Irkutsk, when he was promised redress, and sent back again: he returned last year, and is the chief of Shapinski village, a very intelligent man, and, I thought, very likely to help me to

some information as to their former customs and religion, which are now quite abolished ; nor is their language pure.

He told me, that the Kamtschadals called themselves Itolmatsh (he says they are the Aborigines of the place), and the descendants of Newsteach or Newchtshatsh, and that their God was Newsteachtshitsh. Koutka is his intelligent spirit, the messenger of vengeance to their tormenting demons, and of rewards to the spirits of benevolence : he travels about in an invisible carriage drawn by flying animals resembling mice, but smaller than the human mind can conceive, and swift as a flash of lightning. " Our Sorcerers (said he) were observers of omens, and warned us of approaching dangers, to avert which sacrifices were made to the demons : we were then wealthy, contented, and free." He continued his discourse thus as nearly as I could translate : " I think our former religion was a sort of dream, of which we
" now see the reality. The Empress is God on earth, and her
" officers are our tormentors : we sacrifice all that we have to
" appease their wrath, or wants, but in vain. They have spread
" disorders among us, which have destroyed our fathers and mo-
" thers ; and robbed us of our wealth and our happiness. They
" have left us no hopes of redress ; for all the wealth that we
" could collect for years would not be sufficient to secure one
" advocate in our interest, who dares represent our distress to our
" sovereign."

They are an honest and hospitable race of men, extremely fond of music and of brandy. One of them, who constantly accompanied me in my aquatic excursions, and expended every farthing of his money in brandy, I one day saw coming to my habitation ; and, to tempt him, I hid myself in an adjoining room,

room, leaving a glass of brandy upon the table, and a bottle half full close to it, with some sea-biscuit. He came in, saw nobody, and called me, but obtained no answer. Upon which he advanced to the table, and smelt to the glass: "It is brandy," said he, "but I will not drink; and the bottle half full; well, I won't taste you; but I'll go and seek master, and scold him for leaving you in this manner. I'll just smell again, and go."—I stepped out of window into the garden, and went to meet him; when he accosted me in the following manner: "I have been into your room and saw a glass full of brandy; perhaps you won't believe me, but indeed I did not taste it."—"I dare say you did."—"No, by G—, I did not: I knew you would not believe me; but a Kamtschadal will never take any thing without permission."—"Well, I must believe you; will you come and drink it?"—"Yes, that I will; but I wanted to scold you for leaving it so."

They have long since adopted the manners of the Russians, and profess the Greek religion. Of their former customs there only exist their lascivious dances, and their impure language, with part of the dress. They entertain the greatest veneration for the memory of Major Behm, under whose command they enjoyed the protection of a father. At that time Kamtschatka was governed merely by the major and his assistant, Captain Shmaleff, without any other court of justice. The revenue of this peninsula was then 40,000 rubles annually, arising from the tribute of the natives, the profits on brandy, and the duty on furs; which sum was remitted to the chancery of Ochotsk: a trading expedition in two or more open boats was yearly undertaken by the natives, accompanied by the priest of the peninsula, to the Kuril islands; from whence they obtained sea-otter skins of a superior quality,

quality, several Japanese articles, and wrought silks. The merchants who visited the peninsula brought other necessaries, and hard money for the articles of the natives. Brandy not being considered as an article of trade, but a government concern, the sale was prohibited; and, the commander or his assistant inspecting the transactions of the merchants, prevented fraudulent proceedings on both sides. About the latter end of the year 1779, or the beginning of 1780, Major Behm returned to St. Petersburg. Major Reinikin succeeded him in the command, and wished to introduce among the natives the culture of the earth, but could not succeed; he brought potatoe seeds with him; first grew them in his own garden; and from thence they were abundantly distributed all over the peninsula, with every species of garden vegetables, which are cultivated with great success by the Russian inhabitants.

In the year 1783 a mandate from her Imperial Majesty *proclaimed* Neizhni Kamtschatka a city; ordained it the seat of government of the country under the chancery of Ochotsk; offered privileges to such merchants as chose to become burghers; and instituted courts of justice, establishments better calculated to govern 300,000 men than 1500, which is about the number of male inhabitants. The governor was denominated Gorodnitshik (mayor); and his establishment consists of a secretary and writers; a Kaznatshestva (exchequer) for the receipt of the revenue, and payment of officers; a Zemskoi Sud (court of the interior), of which the Ispravnik, or captain of the district, is president, and in this court one of the natives is a member to represent the whole body; with a magistracy to regulate mercantile concerns, as already mentioned.

The

The salaries allowed by government to the different officers are as follow :

The Gorodnitsnik	-	600 rubles.
His Secretary	-	300
The Kaznatshae	-	400
Ispravnik	-	400

other officers less in proportion ; some of the writers having only 24 rubles per annum.

Price of Articles 1793.	Kazan.	Kamtshatka.
Linen for shirts per arsheen *	18 cop. *	120 cop.
Boots per pair	3 rub.	12 to 18 rub.
Thread stockings do.	125 cop.	4 to 5 rub.
Soap per lb.	6 cop.	60 to 100 cop.
Candles do.	8 cop.	80 to 100 cop.
Tea do.	2 rub.	12 rub.
Sugar	50 cop.	3 rub.
Leaf tobacco per lib.	5 cop.	3 rub.
Rye flour, per pood *	50	500 cop.
Wheat do.	60	800 cop.
Rice per lib.	10	100 cop.

From this statement of prices, the impossibility of an officer living upon his salary will plainly appear ; he is therefore compelled to find out some method of increasing his income, at the expence of the poor natives.

One of the captains of the district, who came here with his wife and family, finding himself extremely distressed, appropriated

* A pood is 40 lb. Russ, or 36 lb. English. 100 copeaks make a ruble ; a copeak may be reckoned little more than a farthing sterling. 9 arsheens make 7 yards.

the tribute of one year to his own use, and wrote a letter to the Empress; stating, that the severity of the climate, the prices of every article of life, and the wants of his family, had compelled him to make use of the tribute, consisting of such a number of fables and fox skins for their backs and bellies, which he rather chose to do than rob the poor natives (the only alternative). He requested her pardon, and an appointment where he could live upon his salary; and the industry of his family (of no benefit in Kamtschatka) might help to repay the amount of the articles that he had appropriated to his own use. The Empress ordered the governor to give him such an appointment, and pardoned him on account of the good reasons that he assigned; but this pardon was not to be regarded as a precedent; for such mercy was not to be extended to any future person who should dare to act in the same manner.

The magistracy receives its income from the burghers and meshanin. The latter are privileged pedlers (and the colonists are of the number); the former are divided into three classes, according to the extent of the capital that they give in, upon which they pay one per cent.

French brandy is now regarded as an article of trade; and a spurious sort is carried about the villages of the natives, who are very fond of it, and pay for it at the rate of one ruble per glass.

The Kamtschadals and residentiary Russians employ themselves during the summer in catching fish; drying some, and salting others for a winter supply for themselves and their dogs: in the autumn, in making hay for their cattle, collecting berries, the

sweet plant, and kiprey; the former is purchased by government for the distillery of brandy, at three and four roubles the pood when prepared and dried. In the spring they collect birds' eggs about the marshes, and particularly among the rocks at the mouth of the bay of Avatsha: these they preserve all the year with oil, as already mentioned.

CHAP. XXII.

The La Flavia departs for Canton.—A Galliot arrives, and conveys the Party to Ochotsk, after some danger from a Leak.—The Author, with the first Party, sets forward for Yakutsk; at which, however, he arrives alone, after encountering much Distress, and leaving his Companions and his Baggage behind on the Road.—Actively assisted by the Commandant and Captain of the District.—The Amoor River described.—Arrive at Irkutsk.—Sketch of Captain Billings's Expedition across the Land of the Tsbutski.—Arrival at St. Petersburg.

ON the 1st of June 1793 the *La Flavia* left the harbour for Canton. The officers of this ship and our gentlemen had passed a very agreeable winter together. Their manners and behaviour were gentlemanlike throughout; nor did any of the inhabitants complain of their want of liberality.

We were now anxious for our departure also, but received no intelligence of the arrival of any vessel till the latter end of July, when the *Constantine* and *Helena* galliot, under the command of Sturman Petushkoff, came into the bay from Neizshni Kamtschatka, whither she had carried a cargo of provision: she was now bound to Ochotsk, and put in here on purpose to take us on board.

We immediately embarked, took leave of our Kamtschatka friends, sailed the 2d of August, and arrived the 19th of the same

same month at Ochotsk. In this passage, however, we had nearly foundered. The galliot, which was ballasted with sand, sprung a leak; the pumps were clogged; and the only method was, to bale out the water, and the ballast with it. However, I at length discovered the leak; and Mr. Bakoff, who had been of infinite service to our Expedition in many cases, found means to stop it; but not till the water-casks, &c. were afloat in the hold.

Application was made to the commandant for horses; and I went off, with the charge of the first party, on the 1st day of September, having delivered the tribute collected at Oonalashka to the chancery of the port, and obtained receipts for the same.

I had twelve half-starved horses, and Ensign Alexeeff and two sailors were with me. We had extremely bad weather, of wind, snow, and rain, which retarded our progress very much; nor could we possibly make more than 20 versts a day. Several of my horses died on the road; but I received assistance from some of the Yakuti, with whom I accidentally fell in as they were returning home from Ochotsk with unladen horses. I arrived at Alachune with only three of the horses that I received at Ochotsk. Here I obtained a fresh supply of such as were fatigued, and hardly able to get on; and, after suffering inexpressible difficulties, leaving my baggage behind in the woods, as also my companions, in hopes of relief from my endeavours, arrived alone at Yakutsk the 2d of October. I immediately represented the deplorable situation in which the parties who were to follow me would, of course, be placed; and that they would, probably, be lost, if a supply of horses were not dispatched directly for their relief, with provision and other necessaries.

The commandant, Colonel Kozloff Ugreinin, and the captain of the district, Mr. Hornoffsky, exerted themselves to the utmost; and the same day about 100 horses were sent to their assistance, and to collect my scattered baggage, consisting of all my clothes (except those which I had on my back), the remains of our gold and silver medals, and other valuable articles. I was supplied with necessaries by the commandant (whose clothes fitted me very well) until the arrival of my own about the middle of November, toward the latter end of which month all the gentlemen, with the sailors, arrived from Ochotsk. Captain Billings was the only officer of our Expedition remaining here, all the rest having embarked in the provision vessel returning to Vircholenfk. During my short stay here, I had an opportunity of seeing the Tungoose head prince, residing on the Aldan, near the discharge of the river Mayo *; from whose intelligence, in addition to the information received from Mr. Hausen and other officers of the College of Mines, I am enabled to give the following account of the Amoor, or Saghaalien.

This river takes its rise from the Kentaiham mountains, about the latitude of 49° , and longitude 110° , east from Greenwich; and is here called the Onon. Its direction is nearly north-east; and at the discharge of the Nirza, where the city of Nortshinsk is situated, about the latitude 52° , it bears the name of the Shilka. This course it continues to the latitude $52\frac{1}{2}^{\circ}$, its most northern extremity, where the Tungoose call it Amoor, and the Chinese Saghaalien Ula (Black Mountain River; I presume, from the oak forests on the mountains hereabout, which the Chinese call

* Alluded to in page 138. He forwarded safely a letter directed to Mr. Saretshoff, somewhere on the coast of Ochotsk, perhaps between the Port and the Aldama or Ud rivers.

Blackwood). From hence it is navigable in vessels of moderate size, having received considerable supplies from the torrents rushing down the eastern and northern mountains, as also from a very considerable river flowing from the south-west, and called the Argoon, which discharges itself into the Amoor about 180 miles east of Nertshinsk. In the vicinity of these parts the Russians have several forts. From latitude $52\frac{1}{2}^{\circ}$ to $47\frac{1}{2}^{\circ}$ it flows nearly south-east, receiving in its course a number of rivers both east and west. The Tshukir has its source from this side of the same mountains as give rise to the Olekma and Aldan * (both emptying themselves into the Lena); and, flowing nearly south, joins with the Silempid, which flows from the vicinity of the Ud †, keeping nearly a western course into the Amoor. All these rivers are navigable for boats nearly to their source.

The country is very mountainous, but the vallies and plains are spacious and fertile. I am induced to be so particular with regard to these rivers, because they form a secure retreat to such Yakuti and Tungoose as are dissatisfied with their situations about Olekma, Yakutsk, the Vilui, and Ud. Here they enjoy the protection of the Chinese, and, I am told, have built several strong places: and, as they are very numerous, they form no inconsiderable advance guard to the Chinese frontiers.

In the year 1787, there migrated to China, from the districts of Olekma, Yakutsk, and the Vilui, more than 6000 Yakuti, with all their possessions ‡. These circumstances have led me into a

* See page 24.

† The Ud flows into the sea of Ochotsk.

‡ This intelligence I obtained, in the house of the Ispravnik Mr. Hornofsky, from Messrs. Evers and Kyshkin, both assessors in the Russian service.

These migrations certainly reduce the number of Tartars tributary to Russia.

digression from the Amoor; and before I return to that subject I shall presume to hazard a conjecture, that some future traveller may discover in these parts a nation of people unknown before, who from their mixture of Yakuti, Tungoose, Burati *, Manzshuri, and Chinese, may form a new language of their own. The immense tracts of fertile land uninhabited and uncultivated will lead the emigrants to select such places as are most likely to produce every means of support; and they may be of great assistance to the Chinese by cultivating of corn, &c. The low country, however, labours under the disadvantage of being subject to inundations, and earthquakes are very frequent.

No rivers of any importance join the Amoor from the east, except the two above mentioned. The Nonni Ula, however, a very large river, which takes its rise about the latitude of 51° , and longitude 123° , makes a considerable inland circuit, and empties itself into the Amoor at its southern extremity, about the latitude of $47\frac{1}{2}^{\circ}$. Another considerable river, the Ufuri, loses itself in the Amoor nearer its estuary, about latitude $48\frac{1}{2}^{\circ}$. It rises from the lake Hinka, and has a communication, after a short day's journey by land, with the sea of Japan. It now flows in its own channel north-west into the sea of Ochotsk, about the latitude of $52\frac{1}{2}^{\circ}$, opposite the island Sagha-alien. This river is well stocked with fish, and its borders are covered with forests of oak, walnut, birch, and different sorts of pines. The soil is very rich, the climate mild and healthy. The inhabitants of these parts of the coast, as also of Corea, and the contiguous islands, are not very numerous, but extremely hospitable and good natured, and carry on a trade with the interior for mere necessaries.

* See page 19.

The Kamtschadals, who have visited the southern Kuril islands, speak very favourably of the honesty and kindness of the inhabitants. *I hope, however, that I shall still be able to give a better account of these unknown regions hereafter, from personal observation.*

I remained in Yakutsk with Captain Billings till the 2d of January 1794, when we departed in sledges for the city of Irkutsk, where we arrived about the middle of the same month, and met with all the officers of the Expedition.

We were here informed, that Lord Macartney was in China on an embassy from Great Britain, which led to various conjectures; but had I received any intimation of his being expected there while I was in Kamtschatka, or at Ochotsk, I should most certainly have paid my personal respects to His Excellency in Peking.

The following is all the intelligence that I could procure of Captain Billings's expedition across the land of the Tshutski; and for it I am indebted to the journal of one of the party.

August 13.—“ At nine o'clock this morning we departed from the bay of St. Laurence, and first crossed to the south-side, when the baidars were hauled sometimes by the Tshutski, and sometimes by harnessed dogs running along the beach. We passed three villages belonging to the natives, and halted at a fourth for the night. The huts were dug under ground, and covered with earth. They were of a square form, with a fire-place in the middle, and four large stones made the hearth. They have no wood, but burn the bones of whales, pouring the oil of sea animals

imals upon them. Each side of the hut contains a polog, or low tent, made of leather, to sit and sleep in.

“ Our first arrival among them did not promise much happiness in their company; for, not knowing their language, we were obliged to treat with them by signs *, for fuel, water, &c. to boil our food, and pay for it immediately. Observing our good nature, and want of power, however, they at length took a liking to the buttons on our coats, which they cut off without ceremony; they also stole our snuff-boxes; and without any hesitation paid a visit to our portmanteaus, in hopes of finding tobacco and iron.

“ The men were tall and stout, dressed in a neat park (resembling a carter's frock), made of the skins of different animals bordered, tight pantaloons of doe-skin, and boots of seal-skin; the head uncovered, and the hair cut short. The warrior has his legs and arms punctured, so as to denote the number of the enemy that he has slain, and the prisoners he has taken.

“ The women were also well made, above the middle size, healthy in their appearance, and by no means disagreeable in their persons. Their dress was of doe-skin, with the hair on; and one garment covered their limbs and their body: this is a park, with roomy pantaloons sewn to it, and sleeves down to the wrists. They put the legs into the opening at the neck, where it ties, as also below the knee. Long boots of rein-deer's legs, with the hair on, are drawn up, and tie over the above dress at the knee. They wear their hair parted, and in two plats, one hanging over

* I cannot conceive where Dauerkin, their interpreter, was at this time.



Alexander del.

Neagle sculp.

A. Ishutski Woman.

Published March 2^d 1802, by Cadell & Davies, Strand.



Drawn by W. Alexander.

Engraved by W. Cooke.

A Man in Armour with a Woman and a Child of the Ishutski.

Published March 2-1802 by Cadell & Davies, Strand.

each shoulder, their arms and face being punctured very neatly *, though almost every one differs from another in the figures. They wore necklaces, and had strings of beads suspended from the ears, as also iron or brass rings round the wrist.

“ August 14.—At eight o'clock this morning we proceeded in our boats, or baidars, entered the bay of Metshikma, and observed on the opposite shore (an island) a village of the same name. We crossed this bay, and arrived at the camp of the Rein-deer Tshutski, who were to be our guides across the country.

“ Our reception by these people was very strange. At first they opposed our landing; old and young, boys and girls, crying out and throwing stones in the sea. After they had done this for some time, the chief (who is named Imlerant) appeared, with several old men, and made two fires; then took our commander by the hand, and led him over one of the fires; took off his own park, and put it upon Captain Billings, who, in return, put a clean shirt upon the chief: this exchange of dress is considered as a mark of friendship and mutual protection. The ceremony of crossing the fires was imposed on every one of us; and all our baggage, provision, &c. was also handed across them. The chief then placed before us large pieces of boiled deers' meat extremely fat; and, to shew our sense of his hospitality, we presented him with tobacco, beads, and needles.

“ At the setting of the sun they commenced racing and wrestling: it was not a race for speed, but running round a ring for

* The annexed ENGRAVING, taken from an original Drawing, will shew the appearance of this their fashionable ornament.

a considerable time; and he who held out the longest was the hero, and had the upper feat assigned him. The wrestler who overcomes all the rest is reckoned the most favoured, as among the Yakuti.

“ 15th.—Imlerant, the chief, received the following presents to divide among the people: 2 poods of iron; 2 poods of tobacco; about an equal quantity of beads; ear-rings, trinkets, and needles. Our interpreter was desired to tell them, that, in return, we hoped they would assist us with food, warm clothing, and every necessary in their power; and, without any attempts to insult, conduct us safely across their country.

“ 16th, 17th, 18th, and 19th, we had rainy weather. 20th, the herds of rein-deer were driven towards the camp, or tents, and halted on their arrival at the rivulet: upon which, two men went out with fire, and two women with small buckets of oil; fires were made, and the deer driven across them and the rivulet to the tents; when a round inclosure was made by the chief of each herd with the sledges of the men, and the different herds were driven into the respective inclosures; the women's sledges were placed between them and the sea. Fuel was now added to the fire; the elder chief seized one of the deer, and gave it to his eldest son, who led it towards the sea, stabbed it with his spear on the left side, and then loosened it. They pay particular attention to the manner of the deer's falling; if on the right side, and it dies easy, they suppose that it portends good fortune, and success in their undertaking; but if it falls on the left side, or is convulsed, the omen is not propitious. This example was followed by the owner of every herd, each taking a handful of the blood of the stabbed deer, which they threw first
towards

“ The next day (20th August) they had a ceremonious feast. At seven in the morning three of the slaughtered rein-deers’ heads (with the horns on, and the whole skin adhering) were placed on little benches, with two of the legs of the deer ; where-upon, four of the oldest chiefs took each a tambour, and began beating, walking gently round, and muttering some words, raising the voice by degrees ; at last they became clamorous, and danced. Having continued some time, the host went to the small tents (which are covered without light) and asked those sitting there, “ How are you ? ” We could not obtain any explanation of the meaning of any part of this ceremony. Upon his opening the polog, those sitting within it answered, “ Chaiyua, chai-yua, chai-yua, lewnom lewnom ; ” which is, further, and further, and further,—better and better. After he had gone to all the small tents, they continued the ceremony, as above, for a considerable time ; and, upon finishing, the host Imlerant went to our commander, took him by the hand, and said,—“ We old men pronounce from our observation, that all your undertakings will be attended with success and good fortune ; and God has sent, for our benefit, the Russians amongst us in a friendly manner, for the first time, to explore our sea, and reward us with li-

T t 2

“ berality.

“ berality. God fend that we may be inseparable allies for
“ ever *.”

“ Captain Billings immediately hung a medal round the neck of the chief, and assured the people of the protection of Her Imperial Majesty, if their behaviour proved their speech to be sincere: upon which, they all bowed their heads, and cried out, “ Chayua lewnom, lewno lewnom;” then they began dancing and singing, men, women, and virgins, till nine o’clock in the evening.

“ The 22d, Captain Billings, Dr. Merck, Sturman Batakoff, Draftsman Varonin, and a failor, went to the village of Metshikma; from which place Mr. Batakoff was sent to survey the bay.

“ The 23d, we went on the hill to see the winter habitations of the stationary Tshutski, who still reside in their tents. Here were four earthen huts; but three of them so extremely filthy, that we could not enter. One, however, we got into; the entrance of which was formed like a watch-house with erect bones of whales; perhaps it is covered in bad weather. It was a hole dug in the earth, eight feet square, and six feet deep. The roof consisted of whales’ ribs and cheek-bones arched, nine feet high in the centre; the supporters also were whales’ bones. There was a bench on each side; and the floor consisted of boards,

* Nicholai Dauerkin was interpreter. He is a native of the Tshutski; was taken prisoner when young, educated in Irkutsk, and sent back to Anadirsk, with the rank of serjeant, to be interpreter between the Russians and his own nation. This speech appears to me quite in the stile of this man himself, and I much doubt the truth of his interpretation.

some of which lifted up for an entrance to the cellar, where they keep oils and their winter stock of provision. There was no fire-place, but a large dish stood in each corner for the purpose of burning oil *. Part of the roof was ornamented with drawings of baidars, fishes, deer, sledges, &c. We remained here till the 25th, when we returned to the tents of our guides.

“ August 26.—The Tshutski thought proper to remove forward, and we proceeded to the top of a mountain 2 versts and 25 fathoms, as measured by a line. Here we remained all the 27th.

“ On the 28th proceeded on our journey, and crossed a mountain overgrown with moss. The next day we were joined by five tents of natives, and remained in this place till

“ September 4, when we travelled one verst and a quarter, and halted all the next day.

“ On the 6th we travelled by the side of a rivulet no great distance, and halted till the 10th. The lakes were now frozen over, and we had 7° of frost.

“ September 11.—At eight this morning three rein-deer were killed with great ceremony, as a sacrifice for the recovery of Owmulrat, son to one of the chiefs, who was taken ill. As soon as they had skinned them, they placed the sick man between the three heads, so that his park, or garment, was over them. An

* The first huts they entered had a fire-place in the middle.

old woman whispered in the ears of the deer, and then walked round him, with lighted dried branches of juniper bushes.

" 12th, The whole of last night was passed by a forcerer in incantations for the recovery of the sick man. This night was passed in the same manner, and the magician was paid with reindeer.

" 13th, We remained in the same situation.

" 14th, At nine o'clock this morning the favourite dog of Awmulrat was sacrificed, being stabbed in the same manner as the reindeer; blood from the wound was thrown three ways; the skin was taken off, the body ripped open, and the entrails examined. At noon the head was wrapped in the skin, and the sick man led round the dog, having anointed his head with blood.

" 16th, We travelled three versts and a half, and halted.

" 17th, We made one verst over a mountain, and came pretty near the bay of Metshikma again.

" 18th, Halted again. This evening, at eight o'clock, strong north lights appeared.

" 19th, We travelled close to the bay of Metshikma."

The Journal continues in the same manner, without specifying any particulars, or mentioning in what direction, until the 4th October,

October, when they were joined by the other interpreter Kobeleff, (a Cossack Sotnik *).

" October the 5th, Captain Billings and Kobeleff went on before with 17 sledges loaded with the whole of the Captain's baggage. (From this time the party behind the Captain seem to have suffered materially, with regard to food, &c.; and on the 9th the Tshutski stole the measuring lines.)

" 12th, Imlerant, the chief, and his wife, went on with 12 sledges to overtake Captain Billings, to obtain some tobacco, &c. and to tell him to wait. We this day came to the river Ugnei, which falls into the bay of Klutchenie, and left the river on the left hand. Upon our halting for the night, the Tshutski compelled us to go back to the river, to seek on its borders some brush-wood to dress food. We had much snow and wind.

" 13th, This day we crossed three lakes; the first of 300, the second 400, and the third 300 fathoms. We now suffered considerably, and could plainly perceive it to be our interpreter Dauerkin's fault; who, when we halted for the night, assumed a right to prevent our getting meat; telling us, that we should not have any, because we had not collected wood. Hitherto we had received frozen meat.

" 14th, Arrived at the bay of Klutshenie †.

* Commander of a hundred.

† I believe that the entrance of this bay forms the extreme point of Asiatic land seen by Captain Cook, and called by him Cape North.

" 15th,

" 15th, We turned from the bay to the west, after travelling its borders to some distance, and passed the night by a rivulet.

" 16th, On account of bad weather, halted.

" 17th, Crossed a mountain and two rivulets, and halted by a lake.

" 18th, After crossing a mountain, we came to a considerable river called Chainana*, but we were 70 versts from its discharge. This day we had nothing but raw meat allowed us, which we ate in a frozen state.

" The 21st we overtook Captain Billings. He distributed presents of tobacco, &c. among the Tshutski, who readily promised to feed us well, and use us better; upon which he again, on the 22d, went forward with Kobeleff and the Sturman's assistant Gilleeff.

" 23d, Numbers of Tshutski passed us, and pitched their tents at no great distance. The chief of our party went to them; and his brother robbed us of almost every thing that we had. However, he gave us plenty of meat, boiled and raw.

" 24th, The chief returned, and we crossed a mountain.

" 25th, 26th, 27th, Halted.

* I take this to be the river that falls into the Icy Sea, a little westward of Klutshenie Bay.—N. B. I observe, that this river, on the Russian charts, is called Amga Yan.

" 28th, We this day came to a rivulet where we observed numbers of Tshutski.

" 29th, Halted.

" 30th, At nine A.M. the chief and I went on to Captain Billings, and received tobacco, beads, &c. upon which we returned to our comrades, and went to seek a feeding-place for our deer.

" 30th and 31st, Halted.

" November 1st, Halted. The reason of halting now, I was informed, was, to kill deer for the parties going to the Kovima, which was 250 * versts distant from this place.

" 2d, I was sent forward, under the charge of the sister of the chief, with two sledges, and went about three versts, when we halted, and were afterwards joined by the rest.

" 3d, Halted. The 4th travelled, I suppose, about 16 versts.

" 5th, Came to a large river, about which several parties of Tshutski were travelling. We halted near a considerable body of them, having travelled, I believe, about 20 versts."

The journal goes no farther; and I had no opportunity of procuring any explanation; but I believe this is the place where one attempt was made to massacre the travellers; in all probability,

* Perhaps the river Angarka is meant instead of the Kovima.

through the persuasions of Dauerkin *; but the other interpreter, Kobeleff, suspecting their designs from their motions and their conversation, acquainted Captain Billings with their intention, and immediately called the chiefs, told them that he knew what they were about, and said, "We are all ready to die; but remember, our bones will be found, and raised by the Russians, although you burn them to ashes." Upon hearing this speech of Kobeleff's, they consulted together, and continued their journey, promising not to kill them.

The other remarks made by the writer of the journal that I have translated, are such as I have already taken notice of; except that the large baidars of the stationary Tshutski are all made of one size, and upon one plan, covered with the hide of the walrofs, and rowed with eight paddles. Beside these, they have such covered ones as the Aleutan islanders have, with one and two seats, but much heavier. The wandering tribes consider themselves more independent than the stationary, and will not allow their wives or slaves to have any intercourse with strangers; while the stationary tribes admit of this without any kind of hesitation, particularly with their slaves. These, however, are treated very differently from such as are free; and it sometimes happens, that when the latter are not satisfied with their situation, they leave one man and go to another. I cannot give any further information respecting these people.

At Irkutsk every possible dispatch was used to finish the part of our business which depended upon that government; and at

* It is my opinion, that this man, who was of a fullen, jealous, and revengeful disposition, found himself hurt by the confidence which the travellers placed in Kobeleff. He had entertained thoughts of rewarding his Tshutski friend, and appearing a man of consequence among his countrymen; in which, however, he was completely disappointed.

the latter end of the month of January we set out for St. Petersburg by the same route which we had taken hither. The Siberian inhabitants appeared rather more shy than they were in 1786; perhaps owing to the season, it being lent. They also complained, that their intercourse with the Mongals was not so open as formerly, the latter having retired to the Chinese frontiers. The Tartar women about Tara were preparing nettles, and spinning thread from the fibres; the linen made of which was fine and good, apparently equal to that made of flax. I have already mentioned the neat carpets then made by these industrious people.

I was surprised at the appearance of detached families of Gipsies throughout the government of Tobolsk; and upon inquiry I learned, that several roving companies of these people had strolled into the city of Tobolsk. The Governor thought of establishing a colony of them; but they were too cunning for the simple Siberian peasant; which induced him to separate each family. He placed them on the footing of the peasants, and allotted a portion of land for cultivation, with a view of making them useful to society. They, however, reject houses even in this severe climate, and dwell in open tents or sheds; nor can they be brought to any regular course of industry; but they watch every traveller, and pretend to explain the mysteries of futurity, by palmistry or physiognomy. The peasant dreads their power, and from motives of fear contributes to their support, lest they should spoil his cattle and horses. It is said, that they are very skilful farriers and cowleeches.

I observed the whole way back a considerable diminution of trees; and in the vicinity of Ekaterineburg, and all the iron manufactories, where the road led through forests that appeared on

either side impenetrable, we now crossed plains where hardly a tree was left standing: this was the case nearly contiguous to the new made towns, and on the borders of the navigable rivers. Immense quantities of timber are floated down the Volga into the Caspian and the Sea of Azof, for private and public uses, as also for further exportation; and, as the generality of buildings throughout the interior of Russia and Siberia are constructed of timber, fires frequently consume whole towns and villages; nor have they any other fuel than wood; for, notwithstanding pit-coal is in many places in great abundance, it is never made use of. It would be greatly to the advantage of the country to enforce the building with more solid materials, and to encourage the use of coal for firing; particularly for the different works that consume much fuel*.

I arrived in St. Petersburg on the 10th March 1794, so very much afflicted with the rheumatism, from a cold caught at Irkutsk, that in regard to action I was reduced to the helpless situation of an infant. The kind attendance, however, of Doctor Rogers, and the friendly assistance of the British merchants in that city, who are so eminently distinguished for their unbounded hospitality, alleviated every pain, lessened every difficulty, and prevented the miseries of penury from being added to my misfortunes.

* Since my return from the Expedition, I have been constantly travelling about the southern borders of Russia, and have seen pieces of pit-coal in the Oka and Volga rivers; and all the country between the Don and the Black Sea is replete with coal. Regular pits are sunk about 200 versts north of the sea of Azof, by Englishmen in the employment of Mr. Gascoigne, for the use of the Black Sea fleet, and of an iron foundery lately built near the river Donets.

APPEN-

A P P E N D I X.

No. I.

VOCABULARY

OF THE

YUKAGIR, YAKUT, AND TUNGOOSE (OR LAMUT) LANGUAGES.

N. B. Ch must always be pronounced like the German ch.—I is always short.

English.	Yukagir.	Yakut.	Tungoose.
G OD	Chail	Tangra	Gheooki
Father	Etchèa	Agam	Amai
Mother	Amea	Iya	Eni
Son	Antoo	Oal	
Daughter	Marhloo	Keefim	Ghoorkan
Brother	T'hátsha	Oobagim	Akan
Sister	Pawa	Agafim	Ekin
Husband	Yádoo	Erim	Edee
Wife	Alwáley	Yaghtarim	Akee
Maiden	Váierendéendi, Marchet	Keefa	Choorkan
Boy	Luhundæ	Ogo	
Child	Lukoolu (in arms)	Kutu ogo, little boy	Kootian
	Uwá (beginning to walk)		
Man	Toromma	Kiffœ	Bey
Men	Toromma	Kiffœlar	
Head	Iok	Bafs	Del
Face	Neatsha *	Sirai	Itti
Nose	Iongul	Mooron	Ogot

* Neatshaga, the skin of any animal.

[A]

Nostrils

English.	Yukagir.	Yakut.	Tungoose.
Nostrils	Iongundangil	Tani	K-clon
Eye	Angzsha	Kafak	
Eye-brow	Angzshabugúelbi, also eyelashes	Chas	Karamta
Ear	Oonómma	Kugach	Korot
Forehead	I-óanguitshel	Sûis	Omkat
Hair	Manallâe	Aflim	Nioorit
Cheeks	Moonéndzshi	Singak	Antshin
Mouth	Angá	Aiyach	Amga
Throat	Tonmúl (hunger tonmulla)	Kaima	Belga
Lips	Anghenmóoga	Ooas	
Teeth	Tòdy	Tees	Itsh
Tongue	Onnór	Till	Enga
Beard	Angénbugúelbi	Buitik	Tshurkan
Neck	Jomúel	Moinung	Mivon
Shoulder	Nungénmoogá	Saning	Mir
Elbow	Itshe-endamey	Tongonock	Etshen
Arm	Núngéan	Illi	
Hand	Nugán		Gal
Fingers	Pe-enditsha		Kabr
Finger-nails	Onzshil	Tingrach	Osta
Breast	Mélud	Tuefs	
Belly	Líeril	Oflogo	Oor
Back	Jewóghá	Sies, Kochsui	Neri
Feet	Noel	Attach	Boodel
Knee	Tshorkel	Tuelgeffo	
Heart	Tshóoenzsha	Surach	Mewan
Stomach	Niméngshinzhá	Mungra	
Blood	Liöpkul	Ghan	Soogial
Milk	I witshi	Ee-ut	Ookiooln
Skin, hide	Char, also clouds	Tiri	Nandra
Meat	Tshul, also body	Et	Oolra
Bones	Amún	Umok	Ipree
Hearing	Mōedik, heard, also felt	Iffit	Ifni
Seeing	Umat, seen	Anar, Koer	Igoorun
Tasting	Tshangitsh, taste	Amtan	Amtam
Smelling	Lemlemoodel, smell	Sitta, Seligan	Moyeni
Felt	Moedik	Istebin	
Voice	Orni	Koemoya	Delgan

English.	Yukagir.	Yakut.	Tungoose.
Talking	Aniak	Ittare, speak, Kapfir	
Name	Nevě	Aatta	Gerbin
Scream, crying out	Orinak	Sangarda	Irkan
Outcry	Orool	Kittanar	Mogandra
Noise	Mungzsha	Yedeimeng	Ooldan
Crying	I-věllek	Ittir	
Tears	Angzhanondz shi		
Laughter	No-ok, laughing	Koiller	
Sneezing	Tshangnui	Ittereer	
Scratching	Pandalitsh		
Trembling	Lirkundzshi	Tittirir	
Singing	Jagtak	Toy	Ikan
Sighing	Ningelamoditsh		
Whistling	Tshundzsha	Iffir	
Lie down	Kondak	Sit	
Go	Ingherghodak	Bar	Choorli
Stand	Onghak	Tur	
To Sleep	Iūnzshul	Tui	Ookladai
Dream, sleeping	I-unzshuk	Oomkella	Ooklean
Jumping	Moēnmōēnga	Ekerek	
Holding	Ma-ik	Tut	
Running	Tshuenzshi	Suir	
Dancing	Longdok	Inkullæ	
Love	Anoorak	Tapta	Googemon
Lover	Anooroh	Taptafabit	
Glad	I-ak	Yarabin	
Joy	I-ai	Yurdim	
Sorrow	Artshetshūnzsha	Sanangatim	
Pain	Joatsh	Irridim	Eyen
Trouble	Ankorfy	Irridenim	Choonatsh
Work	Ooil	Illulatim	Goorgalden
Laziness	Alangnae	Surugaldzshitim	Ban
I	Matak	Min	Bee
Thou	Tat	En	Boo
He	Tundal	Ginne	Nongenatsh
We	Mitek	Buiffiga	Nonganooobe
Ye	Titlak	Iffige	Ellia
Eating	Langdal, ate	Affibin	
Thou eatest	Tatlak	Affa	
To drink	Ondzshok	Iffiem	Koldakoo
To feed	Sagetak	Affiapin	

English.	Yukagir.	Yakut.	Tungoose.
Taking	Mendzshit	Illiem	
Carrying	Moream	Ildzshi	Ghenoom.
Throwing	Potshitshik	Brach	
Giving	Keick	Beer	Omool
		Give me aghal	
To cut	Tfhok	Buis	Minadai
Hiding	Angítak	Kiftya	
Beating	Kogdak	Sienem	Madia
Strength	Tonboy	Kuistak	Egooi
Birth	Oo-inge	Terretput	Ekzshecan
Race of people	Ommo	Omung	Beyil
Marriage	Torroí	Kurum	Awlan
Widow	Poóndalvólle	Erimsoch Yagtar	
Life	Liak	Olloruput	Inni
Body	Tfhul	Ettim	
Spirit or soul	Liéusha	Tina	
Death	Amda	Elbuta	Kokan
Age	Ligai	Kerdzshagas	Sagdi
Youth	Andelgoin	Edder	Noolfoolktshan
Large or great	Tfhomoi	Oolachan	Ekzsham
Small	Lukun	Kutshugai	Nukishookan
High	Pudanniai	Irduk	Gooda
Low	Ledemniē	Namtshiltshak	Netkookak
Cold	Pondzshetsh	Timnee	Iguin
Warm	Pugatsh	Ettegas	
Hot	Pugatsh	Itti	Ghochsin
Health	Tauritsh (good) well	Ellérbuin, Ittugai	Abgar
Malice	Erritsh	Kuttir	Booktshalran
Stupid	Evěntsh	Mennek	
Wife	Onmanneig	Kerfiē	
Agreeable	Naintallitsh	Ittugai	Ariooldoolri
Sharp	Natshennee	Sitti	
Round	Pomne	T'ungruk	
Circle	Pomdzshólené	Tungrutshu	Mewreat
Ball	Loatsha		
Light (weight)	Arrángiā	Tshiptshik	Aimkoon
Heavy	Ningoin	Oorachan	
Strong	Addi	Kittanach	
Weak	Nóndri	Meltoch	
Tight	Iklon		
Thin	Ke-ivey	Sinnegas	

Thick

English.	Yukagir.	Yakut.	Tungoose.
Thick	Inglon	Soan	Derom
Broad	Kanbunnoi	Ketil	
Quick	Omduk	Turgan	Oomufhat
Gentle	Anindzsha	Argooi	Etnioo
White	Po-ianei	Irungk	Geltadi
Black	Aimáivi	Chara	
Red	Kelenni	Kafil	Koolani
Green	Tfhakolonni, also yellow	Keoch	Tfhulban
Blue	Lubanzshanni	Keochtinoo	
Sun	Jelónsha	Kuin	Nultian
Moon	Kininsha	Ooi	Begh
Stars	Lerungundshia	Solus	Ofikat
Sky	Kundshu	Chaltan	Gioolbka
Fog	Tarrel	Kudon	
Clouds	Char	Bullit	
Sun's ray	Jelondshendigia		Elganee
Wind	Illejennie	Tyil	
Blowing	Pookindshi	Kotutar	
Whirlwind	Jadondajendelaia		Ghuee
Storm	Tshemondilaia		Khuga
Steam	Leutshénni (mist)		Okfin
Rain	Tiba	Samir	Oodan
Thaw	Nunbur	Chasing	
Hail	Jarchandiva	Tollon	Bota
Thunder	I-endu	Eting	Afhdoo
Lightning	Borongille	Tfhagilgan	Tapkitan
Snow	Pukoélli	Char	Imandra
Ice	Iarka	Boos	Bookus
Fire	Lotshel	O-at	
Light	Pondshirka, also day	Sirdik	
Shadow	Ivi	Kuluk	
Dark	Emmitsh	Kharanga	
Day	Pondshirka	Kuin	Ining
Night	Emmel	Tuin	Golban
Morning	Unhaiel	Erdee	Tek
Evening	Poinjuletsk	Ke-esse	Moorak
East	Jelongédukshimba, sun rise	Kuintachferra	
West	Aivinda	Onga	
North	Ledinda	Illin	
			South

English.	Yukagir.	Yakut.	Tungoose.
South	Pondzshirka putel (mid-day)	Sogree	
Summer	Puga	Sacin, foyin	Anganal
Winter	Zshendsha	Kifun	
Autumn	Nada	Kuiffin, kuifan	
Spring	Pora	Saas	
Year	Nejunmolgul	Sil	Angan
Time	Indada	Tshitshimtshee	
Earth	Levje	Sirr	Tor
Water	Ondzshin	Oo	Moo
Sea	Tshobul	Baighal	Nam
Lake	Jalgyl	Koel	
River	Onnong	Yiris, yrrach	Okat
Rivulet	Onnongi, nalitsha		Okatshan
Waves	Moinchaija	Duogun	Bialga
Island	Ommul	Arre	
Sand	Nongha	Kumach	Ooneang
Clay	Glina	Boar	Telba
Dust	Pogintshi	Boar kotta	Ch-engelren
Dirt	Kundun	Barri	
(Hill) mountain	Pēa	Seer	
Shore	Ighil	Kittæ	Ch-oolin
Depth	Tshaginmon	Dirring	Choonta
Height	Pudenmai	Irduk	Osiafookun
Breadth	Kanbunnai	Ketit	Demzsha
Length	Tshitnai	Ustata	Ghonamin
Hole	Kondzsha	Chaiagas	Changar
Grave, or ditch	Inghis	Een	Chooneram
Rock	Pea, also stone, mountain	Taas	Dzshool
Iron	Lundal	Timir	
Salt	Logeduntshinu, and Nimedzshindsha	Tus	Tak
Weeds	Oolega, also grafs	Keoch	Orat
Tree	Tshall	Mafs	
A wood	Jungul	Tya	Kenita
Root	Larkul	Turdæ	Kobkan
Stump	Koikél	Tshongatshok	
Bark	Tshangar	Chalterik	Oorta
Branch	Tshilga	Busuk	Gar
Leaf	Paldshitsha	Seberdak	Ebdernia
			Flower

English.	Yukagir.	Yakut.	Tungoose.
Flower	Poelri	Dzshufin	
Berry	Leviéendi	Otton	
Field (plain)	Pondshórkoni	Chodu safir	
Beast	Talau	Koeil	Boyun
Fish	Annil	Balyk	Olra
Worms	Kalnindsha	Iyene	Ogil
Frog	Alundala	Baga	
Fly	Nilendoma	Zachfirga	
Ant	Jojakondzsha	Kmirdagas	
Spider	Managadaibi	Oguigos	
Argali, sheep (wild)	Monoghá		Ooyamkan
Dog	Tabaha	It	Nin
Moufe	Tshalbōe	Kutuyak	Tshalooktshan
Goose	Landzsha		Erbatsh
Duck	Ondzshinonda, wa- ter-bird		Neki
Feathers	Pugelbi, or hairs of beasts	Charungatshæ	Detle
Eggs	Nontondaul	Simmit	Oomta
Nest	Awoot	Oyo and Oyetto	
Shepherd	Itshel	Manisit	
Hut	Numa	Balagan	Dzsho
Door	Anbandáangel	Dzshel	Oorka
Hearth	Eviér	Kolumtan	Nerka
Floor (earth)	Liebe	Sir	
Hatchet	Noomundzshi	Sugai	Tabor
Knife	Tshagoia	Bufak and Buhak	
Boat	Aktshel	Bat	
Carrying	Elléyik	Teyachpit	
Building	Aak	Ongroch	
Cloaths	Māājil	Tangas	
Food	Lagul	Aas	
Raw	Onje	Sikai	
Dressed	Panduk	Bufar	
Thief	Olonunga	Orfach	Dzshioormin
War	Neretshángaté, and Chimdzhingi	Serri	Chooniat
Quarrel	Illedangi	Jegu Yegu	Dzshargamat
Fighting	Chimdzhingi	Ellerfy	Koosikatshin
Spear	Tshovina	Innie	
Guard	Itshell	Kettebil	Goodatsh
			Distress

English.	Yukagir.	Yakut.	Tungoose.
Distress	Oo-ilgaitsh	Aldzsharkoi	Urgadoo
Victory	Aldzshitsh	Samnardabit	Dabbaran
Friend	Aghéma	Doghor	
Enemy	Irritshundzshitoroma evil disposed man	Estiagun	
Servant	Poā	Kolutang	
Chief	Alnindsha	Toyon	
Writing	Tshorillatsho	Surrui	
Numbers	Tshungum	Achfi	
One	Irken	Bir	Oomua
Two	Antachlon	Ikke	Dzshur
Three	Iālon	Ews	Elan
Four	Iēlahlon	Tirt	Digon
Five	Enganlon	Bes	Tongon
Six	Malghialon	Alta	Kilkok
Seven	Purchion	Setti	Etgatanok
Eight	Malgialachlon	Ogos	Tshokotenok
Nine	Chuniirki-ellendz- shien	Tagos	Tshakatanok
Ten	Kuni-ella	On	Tshomkotak
Twenty	Attachongoniella	Surbey	Katshat-kotako
Beginning	Kudalaraga	Manna gitta	
Ending	Itshagi	Kotshu gitta	
Yes	Tat	Ak, ah, eh	Ya
No	Oiley	Soch	Atcha
Now	Indzshi	Billigin	Dzshoole
Before	Angnuma	Oonut	Essemek
After	Indada	Chodzshit	S-fi
Here	Tia	Manna	
There	Talay	Onno	Tala
Yesterday	Nengandshé	Beghassæ	
To-day	Pondzshirkoma	Begun	
To-morrow	Ongóie	Sarfin	
Look	Tindij	Boo	Er
How	Kondamiel	Chaitak	On
Where	Kolæ	Kanna	Illey
When	Chānnin	Kassan	Ok
What	Liōmlentak	Tugui	Ek
Who	Chinetta	Kiminen	Ni
With what	Lumun	Tugonon	Etsh
Under	Tangmuinal	Allara	Ergudalin
Upon	Pudendago	Eussæ	Widalin.

No. II.

VOCABULARY

OF THE

LANGUAGES OF KAMTSHATKA, THE ALEUTAN ISLANDS, AND
OF KADIAK.

English.	Kamtshatka.	Aleutans.	Kadiak.
G OD	Newsteachtshitsh	Aghuguch	
Father	If-ch	Athan	Ataga
Mother	Naz-ch	Anaan	Anaga
Son	Pa-atsh	L'laan	Avagatoga
Daughter	Sooguing	Ashkin	Panigoga
Brother	K-tshidzshi	Choyotha	Ooyitaga
Sister	Kof-choo	Angeen	Alkaga
Husband	Skoch	Oogeen	Ooinga
Wife	Squa-aw	Ai-yagar	Nooliga
Maiden	Ch-tshitshoo	Oogehilikin	Aghanok
Boy	Pahatsh	Anekthok	Tanoghak
Child	Pahatshitsh	Ooskulik	Tshagaloi
Man	Uskaams	Toioch	Sewk
People	Quaskoo, Uskaamfit		Amalachtel-sewt
Head	T-choofa	Kamgha	Angloon
Face	Qua-agh	Soghimagin	China
Nose	Kaankang	Anghofin	Knak
Nostrils	Kaang'a	Guakik	Padzsheeguak
Eye	Nanit	Thack	Ingelak
Brows	Tittan	Kamtic	Kublout
Lashes	Tshuanit	Kochfaki	Chamagate
Ear	E-ew, E-ewt	Tottufak	Tshewdek
Forehead	Tshilgua	Tanneek	Tshoo-uga
Hair	Koobit	Emley	Neweyet
Cheeks	P-phaad	Ooluga	Ooluak

[B]

Mouth

English.	Kamtshatka.	Aleutan.	Kadiak.
Mouth	Kuz-ha	Aghilga	Kannak
Throat	Quiqua	Stshoka	Yoamun
Lips	K'kovan	Kotshoon	Keh-look
Teeth	Kuppet	Aghalun	Choodit
Tongue	Nutshel	Aghnak	Ooloo
Beard	K'ko-ookat	Inglaak	Oongai
Neck	Hitle	Oo-iyó	Ooyagut
Shoulder	Tanutar	Kanglee	Tooik
Hand, arm	Settoo	Tsha	Ai-igit
Fingers	P-koida	Atchon	Shovgait
Nails	Ko-uda	Chagelgin	Stoot
Breast	Ingátah	Simzshin	Tshekiaiat
Belly	K-foch	Kilma	Akf-yek
Back	Altshoo	Tshundra	Koak
Foot	Tsh-quatsshoo	Kita	Itiat
Heart	Nókguek	Kanogh	Kanok
Blood	Mésson	Aamyek	Kaiook
Milk	Nókkol	Makthamtanga	Mook
Skin	Koo-ogh	Katshka	Amek
Meat, or flesh	T'háltal	Oolow	Kamok
Bone	T'hamtshoo	Kaghna	Nenoat
Hearing		Toltakoning	Nitaa
Seeing	Kwatshquikotsh	Okokthakon	Tangha
Taste	Sa-oofen	Katha	
Smell	Skefich	Igutsha	Tfinago
Feeling		Sitchatshada	
Talking	Kahalkan	Toonootha	Neogtok
Name	Hágaach	Aflia	Atcha
Noise	Ki-ichkich	Imatsha	Tulchoo
Crying	Kooga-atfch	Kaighalik	Keagóok
Laughing	Kassooogaatsh	Aloktalik	Ingliachtoak
Singing	K-tsheemgutsh	Anogatha	Attoa
Groaning	Attasich		Knaook
Lie down	Kanhilkitsch	Thirkaigada	Inaghna
Stand	Kasichtshitsch	Ankakthalik	Nanaghna
Go	Kowifitsch	Itsha	Achook
Come	Koquafitsch	Agatha	Taieechook
Running	Kaschiatsh	Angaiakatha	Kemaktoak
Dancing	K-hogdasitsch	Achatha	Chelagtoak
Love		Kingochthaka	Kanogata
Joy	Kabafik	Iglai	
			Grief

APPENDIX. No. II.

[11]

English.	Kamtshatka.	Alentan.	Kadiak.
Grief	Quadafis	Alchologothik	Anchagooh
Pain		Nanalik	
Labour	Khafus	Aguafutha	
Lazy		Sochtalik	Kfatachtook
I	Komma	Keen	Chooi
Thou	Kiz	Ingaan	Chlput
Eat		Kaängen	Pittooaga
Drink		Taangatha	Taanagok
Take	Kommogata	Sulagna	Teooka
Strike	Takfu	Toogalik	Tfhuzshutekew
Throw	Tf-chluk	Ignekan	Ch-kakoo
Strength	Takafna	Matalookan	Oonachkiktook
Marriage	Ktshiza	Afikfagathan	
Widow	Soosoo	Ofchalik	
Life	Kaitafitsh	Anghogikoo	
High	Koo-ung	Kaiakok	Kunachtook
Low	If-ung	Kaielakon	Chkidok
Body		Ooluk	Kainga
Death		Afchalik	Tokook
Big		Taangoellik	Angoch
Little		Aangonolokn	Meyoch
Cold		Kinganalik	Potfnatok
Heat		Tfhinglefelik	
Hot	Kikak	Akivachfelik	Nogtoak
Good		Tfhizshelik	Azigtoak
Bad	Adkang	Matchizshelikan	Kabigwaskak
Wife		Siniktulik	Oofewitok
Stupid		Anghagelikin	Naloo-oomok
Light, not heavy		Igthaghatok	Ogichtoak
Hard	Kittanua	Tungachfich	T-choak
Thick	Homono	Anatulik	Leegoak
Thin		Anatalokon	Amedoak
Broad	Kutenoo	Kaghtoolik	Kangatoak
Quick		Angaiak	Tfhukaladn
White	Attagho	Komakuk	Katchtoak
Black		Kaktshikluli	Toonongoak
Red	Tfhaang	Aluthak	Cowigtoak
Green	Nochfonne	Tfhidthgaiak	} Tfhunagtoak
Blue		Kaktshugthuk	
Sun	Qua-atsh	Akathak	Madzshak
Moon		Toogithak	Eghaloak

[B 2]

Star

English.	Kamtshatka.	Aleutan.	Kadiak.
Star		Sthak	Aghia
Heaven, sky	Kochan	Inkak	Killak
Mist, clouds	Missahan	Inkamaguk	Amaigalok
Wind		Mathuk	Kaiyaik
Rain	Tshukutshoo	Tshiotakik	Kidak
Thunder		Shulukshik	
Snow		Kaneek	Anneg
Ice		K'thak	Tshigoo
Fire	Pangitsh	Kignak	Knok
Light		Anghalk	Tangeechstok
Dark	Dochfac		Tamlestok
Morning		Kilak	Oonamin
Evening		Angalikingan	Akaatoch
Night	Kolkwa	Amgik	
Day		Anghalik	
East		Kayathak	Oonulak
West		Tshedulik	Tchlanik
North		Kighaithok	Oaifiak
South		Namatha	Ooagtok
Spring		Kanikinga	Ognakak
Summer		Seahkothok	Keegtok
Winter		Kanagh	Ookfogtok
Autumn		Seahkothoking	Ookfaghtok
Year	T-chafioo	* Kanaghinalik	
Earth	Symt	Tshkak	Noona
Water	Ee-ee, or i-i	Taangak	Taangak
Sea	Ningl	Alaghok	Imak
Waves	Kiaha	Thuk	
Island	Samatsh	Taangik	Kightak
Sand		Tshooguk	Kaguyce
Clay		Tshikthuk	Kogoo
Mountain	Aal	Ghaiok	Ingat
Shore	Hite-shoo	Atshida	Tshaak
Hole		Tshanok	Piaganok
Ditch		Tshagak	Lagut
Copper		Kanuyak	Kaunooyat
Iron	Quatshoo	Komlegu	Tshauik
Salt	Pepum	Attagook	Tagaiook
Animal			Oongooalihat
Fish	Etshoo		Ekachlewt

* Winter's approach.

Worm

APPENDIX. No. II.

[13]

English.	Kamtshatka.	Aleutan.	Kadiak.
Worm	Chubbut	Lokaiak	Kobellewt
Fly	Quamostsh	Oolinik	Kwielewt
Plants	Sezda		Obovit
Tree			Kobogak
Bear	Kafa	Tanguak	Tagookat
Dog	Kofsa	Uikuk	Pewatit
Fox	Tshafalhai	Okotshing	Kaffiak
Goose	Kfoais	Llak	Nachklaiit
Duck	Alshingush	Tshakutshadok	Sakoligak
Egg	N-gach	Shamlok	Mannik
Nest	I-i-itsh	Tshungangen	Oongolut
Hut	Kifut	Ooladok	Tsheklewit
Door	Nutshoo		Amik
Hatchet	Kvasqua	Anigaship	Anigin
Knife	Watshoo	Omgazshizshik	Tshangielk
Kettle	Kukua	Afhok	Afok
Raw	Sohang	Kangakok	Ai-ce-patnok
To boil	Koquasoch	Oonatha	Kannegtok
War		Saigik	
Thief		Tshkalkan	Teglunachtoch
Quarrel	Situngsh	Amaghilik	Aicevoak
Spear	Quaquanutsh	Kadmagushak	Pannah
Friend	Kallal	Kinoghtaka	Tshuaga
Enemy		Kinoghtatkakan	Tshuugunitaga
Warrior		Kallochalik	Tshekchuyak
Master	Annanum	Tokok	Anayakak
Servant	Tsheguatsh	Talha	
Yes	La	Aang	Aang
No	Iski	Mafelikan	Pedok
Now	Daangoo	Angaiak	Chvenigpak
Before	Koomat	Angaiaktasatha	Itfi-o-ak
After	Namfako	Amoomotaslikan	Ettakoo
Nigh	Do-ok	Wagagnaghikok	
Far off	Nisch	Amathalik	
Here	Noot	Wallignakuk	
There	Onga	Amatkulikuk	
Yesterday	Aati	Kéllagon	Koagh
This day	Daangoo	Vonangalik	Gaunegpek
To-morrow	Bokuan	Ilkellagon	Oonagoo
Where	Natsha	Channa	Nai-ce-ma
How	Nochkuis	Alkólli	

When

English.	Kamtshatka.	Aleutan.	Kadiak.
When	Itta	Iyem	Kakoo
What	Nokai	Alkofigtatima	
Raven		Kalkagiak	Kalnak
Eagle		Tinglak	Koomogik
Bow		Saidegich	Kitfiak
Arrow		Agidak	Chook
Darts		Agalgch	Pannah
One	Kemmis	Attakon	Alcheluk
Two	Nittanoo	Alluk	Malogh
Three	Tshusquat	Kankoon	Pingaien
Four	Tshascha	Shitshin	Stamen
Five	Koomdas	Tshang	Taliman
Six	Kilkoas	Attoon	Agovinligin
Seven	Ittachtenu	Olung	Malchongun
Eight	Tshoktenu	Kamtshing	Inglulgin
Nine	Tshaktanak	Sitching	Kollemgaien
Ten	Komtook	Hafuk	Kollen
Eleven	Difukfin	Attakathamatkich	Alchtoch
Twenty	Kaskumtucker	Algithematick	Suenak
Thirty	Tshukumtucker	Kankuthematik	Pingaienkollen.

The Vocabulary of the Tungoose or Lamut Language I obtained from Mr. Koch the Commandant of Ochotsk, who succeeded Lieutenant-Colonel Koyloff Ugreinin; the rest were all taken by myself on the spot with great care and attention; and having had frequent opportunities to prove them with different natives, I can pronounce them correct.— There are many words in the Language of Kamtshatka that I was not able to pronounce, and could not of course attempt to convey any idea of their sound, which is the cause of so many blanks.

No. III.

A L I S T

OF THE

DIFFERENT STAGES FROM ST. PETERSBURGH;

Specifying the number of versts according to which I paid for horses; the time of arriving and departing from each stage, beginning each day at noon, and reckoning twenty-four hours to the day.

From St. Petersburg	Versts.	From Zimnagorka	Versts.
To Tzarico Zelo	22	To Yadrova	20
Izshora	13	Zotiloffki	36
Tofni	23	Vishne Volotskoi	36
Lubani	26	Vydrapusk	33
Tshudova	32	Torzshok	38
Spaskoi Polisti	24	Mednoi	33
Berezovoi	24	Tweer	30
Novogorod	22	Gorodki	28
Bronitfa	35	Davidova	26
Zaitsova	27	Peski	31
Krestfi	31	Tshornoi	23
Ezshelbitfi	38	Mosco	28
Zimnagorka	23		

Places.

Places.			Versts.	Date, 1785.	Time of	
					Arrival.	Departure.
From Mosco	-	-	.	Dec. 15.		4.
Novaja	-	-	24		7.	8.
Bunkova	-	-	34		10. 50	12.
Kerfhatfhi	-	-	34		16.	17.
Petufhki	-	-	26		20.	21.
Undal	-	-	27	16.	24.	1.
Valadimer	-	-	28		6. 30	7. 30
Tfhudogda	-	-	39		13. 50	14. 30
Mofhok	-	-	30		19. 15	20.
Darfhevo	-	-	27		23.	23. 30
Muroma	-	-	30	17.	2.	3. 30
Monakova	-	-	25		7. 30	8. 30
Pogoft	-	-	29		15.	18.
Pavlova	-	-			21.	
				18.		7.
Lafhkova	-	-	33		19.	21. 30
Neizfhnei Novogorod	-	-	34	19.	4.	9. 30
Befvodnoi	-	-	29		15.	19. 30
Tatnits	-	-	27		22. 45	23. 40
Oftafhick	-	-	32	20.	2.	4.
Ofinka	-	-	32		8.	9. 10
Yemangafh	-	-	32		11. 30	13. 40
Scartog	-	-	22		16.	16. 35
Atchkarene	-	-	30		21. 10	23.
Tfhebakfar	-	-	26	21.	3.	9.
Kofhki	-	-	30		16.	16. 40
Ganafh	-	-	31		21. 25	24. 10
Vefovigh	-	-	24	22.	4.	4. 30
Kazan	-	-	30		8. 30	

Places.	Versts.	Houses and Churches †.	Date, 1786.	Time of Arrival.	Time of Departure.
From Kazan			Jan. 10.		1.
To Beruli, village -	30	70		6.	6. 30
Arsk, city - -	26	100		10. 15	10. 45
		† 2			
Karadvan, village -	28	20		18. 45	20.
Jangulov - -	18	100		22. 40	24.
Gunbar - -	29	49	11.	5.	7. 50
Teremese - -	42	40		16. 45	17.
Vazshintech-Kakse -	26	17		20. 30	21. 10
Sumfae - -	20	36		23. 15	24.
Ubarie - -	14	25	12.	2.	2. 15
Kulmetfat - -	29	25		5. 30	6. 30
Zaitfi - -	38	20		10. 25	11.
Igra - -	37	25		17.	17. 20
Bolshoi-Purga - -	32	50		21.	22.
Debessa, village -	25	90	13.	1.	2.
		† 1			
Sofnova - -	52	200		10.	10. 30
		† 1			
Dubrofsky - -	25	35		13.	13. 20
Ochanoi, city - -	26	60		17.	17. 45
		† 1			
Poldenoi, village -	16	20		20. 30	21. 15
Kultaiva - -	28	40	14.	1.	1. 15
		† 1			
Koianova - -	25	80		8. 30	10.
Krilusova - -	37	100		19. 15	19. 45
		† 1			
Kungur, city - -	20			22. 15.	
			15.		21. 30
Stretenskoi, village	26	80	16.	2. 45	4.
Zolotuoustofsky	19	330		7. 40	11.
		† 1			
Bukovi - -	16	60		13.	13. 30
Atchinsky Krepost -	20	100		17.	17. 30
		† 1			
Bisirski do. - -	20	100		21. 15	23.
		† 1			
Klenofsky do. - -	22	70	17.	3. 15	5.
		† 1			

Places.	Versts.	Houses and Churches †.	Date, 1786.	Time of	
				Arrival.	Departure.
To Kirgishansky Kreporst	28	60	January. 17.	12. 45	14.
Diogrobosky do. -	23	100		17. 40	21.
		† 1			
Belimboieffsky Savod -	23	300	18.	23.	1.
		† 1			
Reshotti, village -	26	10		6.	6. 15
Ekaterineburg, city -	21			11.	
			19.		8.
Kosulina, village -	24	24		12.	12. 45
Belojarsk -	24	30		17. 30	18.
		† 1			
Beliski, village -	25	30		21. 30	22. 30
Chornoi Korova	24	30	20.	2. 15	3. 15
Kamishlov, city -	27	200		7. 30	8. 30
		† 1			
Bushminska, town	32	50		13. 50	14. 30
		† 1			
Kujarsky, village	14	15		17.	17. 30
Beloi Jalamsky -	14	40		19. 30	20. 15
Bela Kaska, town -	28	50	21.	1. 15	2.
		† 1			
Tugulunska -	32	60		6. 30	7. 30
		† 1			
Uspiansk -	22	80		12. 45	15.
		† 1			
Tumen, city -	30			20.	
			22.		1.
Kaskara, village -	24	20		3.	4. 20
Sosonov -	22	45		9.	9. 25
		† 1			
Kosmakof -	21	30		14. 15	14. 30
Prokofsky -	10	150		15. 45	16.
		† 1			
Ufolka -	12	80		18.	18. 15
Jarkova -	15	40		19. 30	19. 45
Artamenof -	9	20		20. 30	21.
Jevleff -	10	18		22.	22. 30

Places.	Versts.	Houses and Churches †.	Date, 1786.	Time of	
				Arrival.	Departure.
January.					
To Antepena, village -	18	30	23.	1.	1. 15
Lipoffsky -	17	30		2. 30	2. 45
		† 1			
Baikaloff -	18	70		4. 20	5.
Turbayeffsky, tartar huts	23	40		8.	10.
Rechkoffka, village -	25	7		13.	16.
Tabolfsk, city -	25			20.	
			24.		19.
Baksheva, village -	29	10	25.	24.	1.
Stara Pogost -	20	30		3.	4. 40
Kapotilova -	30	8		8.	9.
Drefvanka -	31	6		16.	16. 45
Istitski Jurti -	30	14		21.	21. 45
Kuferadska, village	41	30	26.	5. 30	6.
Golopopova -	56	30		17.	18.
Vikolov, town -	31	75		22. 30	23. 30
		† 1			
Otfhimova, village	46	30	27.	5. 20	6. 20
Zudiloffsky, for post -	58	30		17. 25	18.
Ribina, village -	36	20		22.	23.
Chaoonina -	40	20	28.	4.	7.
Leffka, town -	30	70		12.	12. 30
		† 1			
Butakova, village -	38	40		18.	19.
Tara, city -	29			21.	
			29.		2.
Uftara, village -	32	50		5.	6.
		† 1			
Reshetnikoff, village	36	30		11. 15	12.
Artin -	14	30		14. 30	15.
Refina -	52	80		21. 30	23.
Marafhi -	24	20	30.	2. 30	3.
Nazareva -	12	80		4.	4. 15
		† 1			
Ghochlova -	19	70		6. 30	7.
Voznesenska, town	20	100		10. 30	11.
		† 1			

Places.	Versts.	Houses and Churches †	Date, 1786	Time of	
				Arrival.	Departure.
January.					
To Tartarski, village -	20	35		14. 30	15.
Turomova -	21	80		18. 30	19.
Pekrofska, town	17	70		21.	21. 45
		† 1			
Antofkin, village -	23	50		24.	24. 15
Bulatova -	18	75	31.	4.	4. 30
Kainsk, city -	33	125		7.	7. 20
		† 1			
Offinova Kolki, village	29	70		23. 45	24. 15
Kolmakov -	30	50	Feb. 1.	3.	4. 15
Ubinsky -	30	50		8.	9.
Kargan -	28	50		12.	12. 15.
Karbotski, for post -	26	70		15. 45	16.
Kirgatski Dubrovi -	25	50		24.	24. 30
Itkula, town -		100	2.		2.
		† 1			
Sektinsky, village -	47	66		5.	5. 20
Oftshinikoff -	17	50		7. 45	8.
Sheligino -	26	70		11.	11. 15
Tarashinska -	20	30		14.	14. 15
Tshaushska, town -	25	80		17. 15	17. 40
		† 1			
Dubrovina, village	40	8		21. 30	22.
Ajashinsk -	35	40	3.	2.	2. 45
Karashina, village -	25	10		5. 30	7. 30
Chornoi Kastanits	33	20		10. 30	11. 5
Varuchina -	34	60		15. 20	15. 30
Kaltai -	23	23		17.	17. 30
Tomsk, city -	24			19. 45	
			4.		23.
Semenushni, town	28	35	5.	2. 30	3. 35
		† 1			
Chaldeiski, village	14	40		4. 15	5. 25
Turuntaiva -	22	40		8. 30	9.
Cleon -	40	30		17. 30	19.
Potshitanti -	22	20		22.	22. 20
Berikul -	25	24	6.	2.	2. 30
Kiskova, town -	52	60		12. 30	13.
		† 1			

Places.	Versts.	Houses and Churches †.	Date, 1786.	Time of	
				Arrival.	Departure.
February.					
To Suslova, village -	23	15	6.	14. 30	15.
Tezshin -	28	60		18. 30	19.
Itat -	32	30		23.	24.
Bogotolski, town -	34	250	7.	4.	4. 20
		† 1			
Krasnoreka, village	28	150		6. 45	7. 45
Archin, city -	28	150		11. 30	12.
		† 1			
Chornoi-rechka, village	32	60		16. 45	17.
Bolshei Kemtshuk -	38	40		22.	23.
Maloi Kemtshuk	35	26	8.	5.	5. 30
Zavedeva -	31	30		8. 30	9.
Krasnojarsk, city -	25			12.	14. 30
Botoi, village -	24	102		17.	17. 20
Kuskun, village -	23	35		21. 45	22.
Balai -	32	30	9.	1.	1. 40
Jarr -	24	60		5.	5. 30
Ribnia -	25	80		9.	9. 30
		† 1			
Klutch -	30	30		13. 15	14.
Uria -	20	30		17. 30	18.
Kamskoi Ostrog -	25	70		21.	21. 30
		† 1			
Ilan, village -	20	15		24.	24. 30
Poim -	28	20	10.	5. 30	6.
Tini -	18	10		8. 30	9. 30
Klutchi -	28	5		14. 45	17. 30
Berufa, town -	40	60		22.	22. 30
		† 1			
Bayronoff, village	21	20	11.	2.	2. 45
Rozgonia, hut -	24	1		6.	6. 45
Alzamai, village -	19	8		10. 30	11.
Zamfor -	32	10		15.	15. 30
Ook -	35	10		20.	20. 30
Udinsk, city -	25	300		22. 20	23. 15
		† 2			
Singui, village -	30	12	12.	2.	2. 15
Shabatan -	30	16		6.	6. 30

Places.	Versts.	Houses and Churches †.	Date, 1786.	Time of	
				Arrival.	Departure.
To Toolon, town	46	130	February. 12.	11.	11. 30
		† 1			
Saragool, village	26	30		13. 30	14.
Kuilton	41	70		18. 30	19.
Kamelte	38	120		22.	22. 30
Zeminfk, town	28	50	13.	1. 15	2.
		† 1			
Dolroi	46	80		6. 15	7.
		† 1			
Kupulin	29	100		10.	10. 15
		† 1			
Chiremchova	28	80		12. 30	13.
		† 1			
Tatook	38	110		16. 15	17.
		† 1			
Viligtui	36	70		19. 30	20. 30
Irkutsk, city	24		14. May 10.	1.	6.
Kuda, town	18	200		8.	18.
		† 1			
Oyok	13	180		22.	22. 10
		† 1			
Bufinski	27	1.	11.	24. 30	1.
Olonfki	30	1.		4. 50	5.
Bayendarfk	30	1.		7. 15	7. 25
Kudunfa	30	1.		10.	15. 30
Manfurka	30	1.		19.	19. 30
Ifiet	30	1.		22.	23. 30
Katchuga Pristan	22	15.	12.	2.	

The following Villages we passed on the River Lena. Versts reckoned from Katlhuga Pristan.

Places.	Versts.	Date, 1786.	Houses.	Churches.
		May.		
Katlhuga, town - -	3	15.	70	1
Kishnova - -	14		10	
Vircholenfk - -	30	staid till 16.	100	2
Unitfki - -	35		5	
Kuliofski - -	54		6	
Kozlofski - -	59		5	
Apushinsk - -	64	waited day-	6	
Kashinofski - -	80	light.	16	
Zapleshinsk - -	86		8	
Garafovoi - -	90		3	
Pagofski - -	97		21	
Verobrofski - -	100		14	
Mikishinsk - -	107		6	
Apashinsk - -	119	17.	5	
Golovna - -	123		6	
Ardofski - -	126		11	
Golovnofski - -	128		10	
Kuznetsofski - -	131		6	
Simeonofski - -	132		7	
Balaganfkoi - -	135		12	
Ziranofski - -	137		7	
Gigalofski - -	140		13	
Ustilga - -	170		50	1
Grufna - -	194		9	
Botofski - -	218		10	
Shamanofski - -	228		15	
Golli - -	244		8	
Sherftinova - -	251	18.	1	
Starfa - -	254		2	
Tomfkina - -	257		7	
Sarofski - -	264		3	
Zagobininski - -	284		9	
Bafofski - -	299		7	
Dudkin - -	303		9	
Orlinga - -	324		20	1

Places.	Versts.	Date, 1786.	Houses.	Churches and Monasteries †.
Povoski - -	325	May 18.	15	
Pooliofski - -	327		11	
Vifoka - -	334		7	
Tarasova - -	342		8	
Sedunofski - -	344		8	
Scokniofski - -	364		4	
Boyarski - -	384		8	
Pavlova - -	394		1	
Omolofski - -	407		6	
Sinushkin - -	413		3	
Riga - -	420	19.	3	
Turoka - -	454		8	
Ufkoot - -	469		20	I
Balachaia - -	480		9	
Yekurin - -	487		10	
Polovinoi - -	498		3	
Podimachinskai - -	512		14	
Kofarki - -	513		10	
Kokooishka - -	531		4	
Ti-oorä - -	541		10	
Nazarofski - -	584		10	
Marakofska - -	601		20	I † I
Tyra - -	615		10	
Ulgan - -	623		8	
Kafemerofski - -	633		3	
Krasnoyarof - -	641	20.	4	
Levonofski - -	649		3	
Potapofski - -	655		6	
Lubofski - -	674		4	
Karasofski - -	678		4	
Sheftakova - -	683		2	
Gavrilofski - -	684		2	
Panskoi - -	685		5	
Balashova - -	688		2	
Makarova - -	690		11	I † I
Panshina - -	702		2	
Zaboriskoi - -	705		12	
Krivalutskoi - -	710		20	I
Vologinsk - -	713		5	
Lavrushinsk - -	718		4	
Lazarova - -	725		5	
Menakofskoi - -	730		2	

Places.			Versts.	Date, 1786.	Houfes.	Churches and Monasteries †.
				May 20.		
Tshertoffkoi	-	-	745		2	
Kudrina	-	-	750		3	
Kulibakinsk	-	-	766		4	
Krivorotskoi	-	-	772		15	
Kabarova	-	-	776	21.	10	
Varoninsk	-	-	777		15	
Kiringa	-	-	778		80	3 † 1
Nikolski	-	-	780		4	
Zme-ina	-	-	790		9	
Alexeeffski	-	-	802		8	
Soltikoffski	-	-	815		19	
Podkaminoi	-	-	818		20	
Polovinoi	-	-	821		12	
Pikulina	-	-	824		4	
Borovia	-	-	825		2	
Mesovia	-	-	826		3	
Gerbova	-	-	828		20	
Banshikoff	-	-	830		20	
Tshigiofski	-	-	838		25	
Grebenie	-	-	840		10	
Kondrashinsk	-	-	844		12	
Vesnikova	-	-	854		20	1
Sukniova	-	-	869		20	
Spoloshna	-	-	874		30	1
Kabalova	-	-	875		20	
Pushinova	-	-	894		10	
Iliensk	-	-	899		7	
Darinsk	-	-	919		10	
Izshura	-	-	949		11	
Davidoff	-	-	963	22.	7	
Korshunoffski	-	-	980		7	
Ivanushka	-	-	981		3	
Tshastinsk	-	-	1004		2	
Varobieffski	-	-	1041		1	
Kuraisk	-	-	1070		4	
Poishina	-	-	1110		3	
Tshuiski	-	-	1157		7	
Vitima	-	-	1178		30	1
Pelidui	-	-	1205	23.	30	1
Kristoffski	-	-	1232		3	
Yeloffski	-	-	1259		4	
Pirkinsk	-	-	1293		4	

Places.		Verfts.	Date, 1786.	Houfes.	Churches and Monasteries †.
			May 23.		
Ghamra	-	1309		3	
Konki	-	1336		2	
Tshioofka	-	1380	24.	3	
Muria	-	1405		3	
Silguil	-	1445		5	
Newye	-	1475		5	
Yerba	-	1505		3	
Oofhakan	-	1540		2	
Yedai	-	1565		4	
Mackai	-	1595	25.	2	
Berofova	-	1645		4	
Dolgoi	-	1678		3	
Nelena	-	1711		3	
Cheringa	-	1736		4	
Birt	-	1775		6	
Anyinfk	-	1798		9	
Alofinfk	-	1799		13	
Olekma	-	1807	26.	50	2
Solenka	-	1832		4	
Namania	-	1872		3	
Karabalyk	-	1912		3	
Chatin Tumul	-	1954	27.	2	
Murta	-	1976		1	
Sanayagtak	-	2018		2	
Malikan	-	2055		2	
Ifaki	-	2090		2	
Nevarchie	-	2125		2	
Umarie	-	2150		2	
Sinae	-	2180		2	
Batamai	-	2210		3	
Kitarie	-	2232		2	
Toiona	-	2274		2	
Biftach	-	2301		14	† 1
Yakutsk	-	2390			

No. IV.

A C C O U N T

OF

The full Pay of the different Ranks, with other Dependencies; and also an Explanation of the usual Deductions, according to the Regulation of 1782.

	Ro.	Co.	Ro.	Co.
Captain of 1st rank -	600			
Allowed 6 Densthicks; their pay each -	6			
Which pay is understood for all Densthicks of others				
Captain of 2d rank -	420			
4 Densthicks				
Captain-Lieutenants, Majors' rank -	300			
3 Densthicks				
Lieutenants, Captains' rank -	200			
2 Densthicks				
Midshipmen -	120			
1 Densthick				
Upper Auditors -	240			
2 Densthicks				
Auditors -	100			
1 Densthick				
Clerk, or Secretary -	72			
Skippers				
Of the 1st rank -	144			
1 Densthick				
Of the 2d rank -	132			
1 Densthick				
Commissary -	100			
1 Densthick				
Priests -	120			

	Ro.	Co.	Ro.	Co.	
Surgeons					* According to their merits and abilities, their pay to be augmented or diminished.
Each allowed 1 Denflick	300				† According to their attention, abilities, and desert, to add or deduct; but never less than ro. 60, nor more than their full pay.
	240				‡ According to merit, their pay to be increased or lessened; but never to be less than ro. 24, nor to exceed their full pay in addition.
	180				
	150				
Ships' Clerks	36				
Sturmen	138	* 40			
Pod Sturmen	60				
Pod Lekars	84				
Pod Skippers	60				
Timmerman (Ship Builders)	90				
Boatfwains	60				
Boatfwains' Mates	36				
Sturmens' Learners	31	50			
Surgeons' Learners	18				
Quarter-Masters	24				
Sailors { 1st	11	14	5	36	} Their uniforms to be given <i>in natura</i> .
2d	7	64	5	36	
Cabin Boy	6	9	4	16	
Defatnick of Plotnicks	24				
Plotniken	15				} From 12 ro. to 18 ro. according to their merit; but not to exceed this stipulated sum.
Caulkers	15				
Sail-Makers' Mates	15				
Smiths	15				
Coopers and under Coopers	15				
Boteleirs	24				
Under Boteleirs	11	14	5	36	} Their uniforms to be given <i>in natura</i> .
Trumpeter, 1st and 2d Class	40				
Kettle Drummers	60				
Cooks 1st and 2d Class	9	14	5	36	} § According to their knowledge of music and good behaviour their salary may be augmented or diminished.
Profort	6	14	5	36	
In the Sea Hospital					
Doctors	800				Their uniforms <i>in natura</i> .
3 Denflicks					
Stab Lekars	600				
2 Denflicks					
The Upper Priest of the Fleet above Church Characters	240				
Marines					
Major Præmier	300				

N. B. Denflick is a Servant allowed out of the Ship's Company, not only whilst at sea, but also at quarters. This man may be let out to work, and the Officer receive the money that he gets by labour, as also his allowance of provision.

No. V.

INSTRUCTIONS

OF

HER IMPERIAL MAJESTY,

FROM THE

ADMIRALTY COLLEGE,

To Mr. JOSEPH BILLINGS, Captain-Lieutenant of the Fleet, commanding the Geographical and Astronomical Expedition intended for the North-Eastern part of the Russian Empire.

HER Imperial Majesty, extending her maternal and unremitted care for the happiness of her subjects to all, even the most distant, parts of her vast dominions, has been graciously pleased to order, as well with intent to furnish them with better means of life, and to render them more happy and advantageous, as for the important advancement of science, an expedition of discovery to the most eastern coasts and seas of Her Empire; for the exact determination of the longitude and latitude of the mouth of the river Kovima, and the situation of the great promontory of the Tshutski, as far as the East Cape; for forming an exact chart of the islands in the Eastern Ocean extending to the coast of America; in short, for bringing to perfection the knowledge acquired under her glorious reign, of the seas lying between the continent of Siberia and the opposite coast of America.

The execution of this Her Majesty's intention is entrusted to you, as a skilful officer zealous for the service of Her Imperial Majesty; in full confidence, that the importance of this business with respect to the glory of Her Majesty's sacred name, and the interest of Her Empire, will excite you to fulfil the great expectations entertained of your abilities.

Her

Her Imperial Majesty, agreeably to her wonted gracious and generous disposition in all her useful and maternal commands, is pleased, over and above such weighty incitements, for your greater encouragement to activity and zeal in the service, to give you the rank of Captain-Lieutenant of the fleet; for which rank you have taken the oath, and received your patent; and, to favour you still more, the officers and petty officers which you have demanded are named according to your own choice, as you will observe by the list annexed hereto.

At the same time Her Imperial Majesty has graciously ordered, that from the day of signing this Instruction, until your return to St. Petersburg, you and all under your command are to be allowed double pay, according to their ranks; to you according to the rank here granted, and to your subalterns according to the rank that they shall obtain at Irkutsk; which pay is to be given here, one year in advance; above which, to you and all your subalterns, a bounty of one year's pay for procuring necessaries for travelling.

Our Most Gracious Sovereign has also generously ordered, that at your arrival at Irkutsk, before you begin the execution of what is prescribed in the following articles, you shall declare in Her Majesty's name, to all officers and petty officers under your command, an advanced rank above what they bear, and have them sworn accordingly; except those only who are to receive gratifications in money, according to the annexed list.

Her Imperial Majesty graciously orders you to declare yourself, in Her Imperial name, Captain of the Fleet of the second rank, after having fulfilled the business prescribed in the following articles on the river Kovima; in which rank you are then to take the oath.

When you have finished your prescribed business on the river Kovima, and along the coast of the Tshutski, at your return to Ochotsk, where every thing will be ready for your voyage to the coast of America, at the instant of going on board you are to declare, in Her Imperial Majesty's name, an advanced rank to all under your command; to cause the oath to be administered to yourself, and to the rest according to the above-mentioned list. Lastly, at your arrival at Cape St. Elias you may declare yourself Captain of the first rank.

Those of your subalterns who, according to their rank, succeed to the places of such as may die, either a natural death or by accident, and who will be ordered to such rank either by you or by the officer that may have the command after you, provided they produce a certificate of their good behaviour and zeal in the service from the Commander in Chief, will on their return to Petersburg be confirmed at the Admiralty College, in the name of Her Imperial Majesty, in the rank conferred on them; and will be accounted in that rank from the day of their appointment.

ment. This is to be understood of those who bear petty officers' ranks; those who get into the denomination of upper officers, according to the above-mentioned order of advancement, will have equal advance with officers that go from hence.

In case any one of those that go from hence should die, be maimed, or lose the use of his limbs, during the Expedition on the Tshutski coast, or the navigation from Ochotsk to the American coast; if such person should have a wife and children, the widows of the deceased shall receive until they marry again, or until their death, and the children till they come to their lawful term of years, half pay of what the deceased received during the Expedition; the maimed shall also receive such half pay during their lives.

After having completed the business entrusted to you, on your happy return to St. Petersburg, you, and all under your Command, will receive the defect of the double pay for the different ranks obtained during the Expedition; and, as a gratuity, a year's double pay according to the rank they return in; over and above which you and all your subalterns, returning safe, will receive for life the single pay received during the Expedition, without accounting for what he may get for future services.

Such gracious grants and further promises of protection, but most of all the importance of the trust laid upon you, must excite in you a noble emulation to render yourself worthy of it, by endeavouring to do all in your power to fulfil the articles of this instruction, confirmed by Her Imperial Majesty, and setting, by your unremitting endeavours, an example of zeal to all your subalterns.

ARTICLE I.

For your information are hereunto annexed fourteen charts of former navigators on the Northern and Eastern Ocean, and along the coasts; as also of travels by land; to which are annexed short extracts of the journals of the travellers, from 1724 to 1799. The plan of the vessel presented by you for inspection is herewith returned; and you may, upon that plan, construct vessels at Ochotsk, if there be not one found there fit for your navigation. Annexed is likewise a list of Russian towns, with the determination of the latitude and longitude of some; as also a model, according to which vocabularies of the different nations are to be collected. You receive also medals expressly made for you, to be employed with such nations, the proper appropriation of which will be hereafter described.

You will receive herewith five thousand rubles, to be employed in buying beads, knives, and other instruments, small copper-kettles, and other such trifles, to be employed as presents to the savages who are fond of them.

You

You will also receive here mathematical and astronomical instruments, besides others; and double pay, for you and all your Command, for one year advance; and likewise the above-mentioned bounty granted by Her Imperial Majesty for you and all your Command, which you are to deliver against their receipts in the official receipt-book, of which twenty are given to you from the Admiralty for this purpose; as also for entering for the future all receipts and expences. After you have provided yourself with all necessaries for the journey, you are to proceed with all your Command, the shortest and most advantageous road to Irkutsk. You are to take care not to break your oath of keeping secret the business entrusted to you; and not to exceed, on affairs of secrecy, the ukaze of 1724, of which a copy is annexed for your information. You are not to open yourself on any account to any body about the measures or proceedings of your Expedition, unless ordered so to do; and much less so, to any body, this or any other instruction that may be given to you for the same purpose; you are also to give the most strict orders to all your Command to this effect.

During your travels, if any very important accident should happen to you, you are to give notice to the Admiralty College by express; but in affairs of less importance, for example of the state and place in which you are, send your reports by post. From the day of your setting out from Petersburg till the very conclusion of your Expedition, you are to keep a journal very accurately yourself, and order your officers to do the same.

ARTICLE II.

When you arrive with your Command at Irkutsk, you are to deliver to the Governor-General of Irkutsk and Kolivan, Jacobi, or in his absence the Vice Governor, the original ukaze of Her Majesty directed to him; to which is added a copy of this your Instruction; and in which order is given, that all possible assistance be rendered at your request for the service of Her Majesty. The Governor is to give you sufficient directions for your journey to Yakutsk, Ochotsk, Izshiginik, and to the river Kovima. He is to provide you with an open ukaze, by which it is enjoined to all the commanders and chanceries of the places through or by which you, or any sent by you (to whom you are always to give at their setting off your instructions for their journey), may travel, that they, upon your request, give you all possible assistance, as well of hands as stores and provisions; besides, the same Governor-General is empowered by Her Majesty's ukaze to give you another open ukaze, for the receipt of ten thousand rubles for unexpected and extraordinary expences, which may happen during your travels; as also for travelling expences, and for the payment of such men as you may, according to the prescription of this instruction, employ in any part of Irkutsk. Of this sum you may receive as much as is necessary,

fary, and when and where you think fit; but for the money received, you, and the eldest officer next you, are to pass your receipts, that you may know how much money is received and can be received on the ukaze. You are to require in each place where you take money, that he from whom you receive it should endorse upon the ukaze, how much, where, and when, the payment has been made; and the expences, with an account for what the expenditures have been made, are to be noted in the official book given by the Admiralty, with receipts wherever they can be procured. Stores and provisions you are to receive, with consent of your subalterns, mentioning, in the receipt which you give, the quality and quantity of goods received. You are not on any account to make any superfluous or puzzling demands, only what is prescribed, or such as contribute in reality to the service of Her Majesty; nor expend any sum upon what is not necessary, as you will be responsible for it.

At Irkutsk you are to endeavour, with the help of the Governor-General, to provide yourself, without the least loss of time, with all necessaries, and to get them transported to their respective places. You may, for forwarding business, detach from your Command upper and under officers for inspecting, preparing, and transporting the stores collected to their places of destination.

If you see, by the list in the possession of the Governor-General, that in the magazines at Ochotsk there is not a sufficient quantity of provisions and other stores necessary for duly arming and victualling the ships which are proper to be employed for your navigation, as also for your march to the river Kovima, and along the coast of the Tshutski; in such case you are to request the Governor-General to endeavour by all means to furnish the magazines in due time with what is requisite, and that the said Governor-General may send an express to the Commander of Ochotsk, with orders as well to supply such wants, if there should be any, as also to stop the vessel that annually sails with provisions for Izshiginiski Krepost in June or July, that you may be able to take the opportunity of said vessel for going to Izshiginiski; and lastly, that the said Commander should send orders to Petro Pavlofsky, or whatever other harbour of Kamtschatka is thought more proper, for preparing there, against your intended voyage towards the coast of America, sufficient quantities of dried fish and wild roots, and other eatable wild vegetables, for the supply of your people; enjoining, that at such harbour should be stationed in due time about twenty Kamtschadals, used to a seafaring life, and well skilled in fishing and hunting, who are to accompany you in your voyage for the usual pay.

At Irkutsk, you may examine and take your choice of five or six of the best scholars of the Navigation School, and take them under your command to employ them during your travels in surveying and drawing charts: these are to remain

with you till the conclusion of the Expedition, upon the same footing as the other petty officers that go with you from Petersburg. Those Uchenicks that were formerly sent with Captain Krenitzen received fifty-four rubles annually; you may give them such payment for one year for their equipment.

You are also to take with you from Irkutsk the naturalist Mr. Patrin, who will remain with you till your return with your Command to St. Petersburg, in order to describe such natural curiosities as may be met with during the course of the Expedition: he will receive particular instructions for his business, and what he is to do in such places where he will go with you, or where you shall think fit to send him, for describing objects worth observing; you are to assist him, upon his request, with hands, instruments, and money for executing his orders; giving him leave to stop for observations in such places so long as circumstances will permit, taking him along with you wherever you go to distant places. You may, if you shall think it necessary, receive from the Governor-General at Irkutsk, according to the imperial ukaze, another year's double pay for all your Command in advance.

Having received from the Governor-General all that is required for the Expedition, and all that may serve for your future and more circumstantial information; having also executed all that is to be done at Irkutsk, and reflected on circumstances that may happen during your further journey, you will then, without loss of time, either by land or along the river Lena, as you shall think best, with such of your Command as remains with you after making the necessary detachments, proceed to Yakutsk, or where you shall think it most convenient for the service, or the intent of the Expedition. As you are strictly to follow the directions of the Governor-General, so you have also to make your reports to him of your proceedings, of unforeseen untoward circumstances and hindrances in your journey to Ochotsk, and from thence to Izshiginsk and to the Kovima; in order that you may, in case of necessity, receive directions from him how to proceed.

Lastly, You are to represent to the Governor-General, that he is to give the most absolute orders through his whole government, that nobody should be curious in opening letters sent by messengers with private reports, as it happened during the Expedition under the command of Captain Krenitzin the 10th of April, in the year 1768, at the port of Ochotsk, by the Commander Colonel Feodor Plenifner.

Particularly at this time, and in this part of the Russian Empire, most of all in parts lying beyond the river Lena, as far as you shall travel either by sea or land, you are to determine as nearly as possible the longitude and latitude of remarkable places, the variation of the compass; to form surveys and charts; draw remarkable views of coasts, with the situation of bays, inlets, and roads; and mark their advantages for trade, fisheries, &c.; likewise to observe and describe the time, strength, rising,

rising, and irregularity of tides and currents; also of rocks under water, shoals, and other dangerous places; the ruling, variable, and trade winds; the changes of weather; meteors, particularly Aurora Borealis; the state of the electricity of the air during these meteors, and their influence on the compass; lastly, the changes of the barometer and thermometer.

Moreover, Mr. Patrin will have particular instructions respecting his observations in natural history: however, you are never to neglect, especially when he is not present, to observe the nature of the soil accurately, and of the productions of the country where you find yourself; you are diligently to collect seeds, ripe fruits, and dried plants, branches and pieces of the wood of remarkable trees, their barks, resins, and gums; also sea-weeds, zoophytes, shells, fishes, amphibious creatures; insects, birds, and other animals; taking off and stuffing the skins of some, and drying and preserving in spirits others. You are likewise to collect specimens of ores, fossils, stones, salts, earths, and sulphurs; noting the place where each were found or caught, and at what time.

To prevent such collections being spoiled by accidents, you may leave them in such places as you think proper, where you may take them up at your return to St. Petersburg. If in such places there should be a commander, you are to deliver them to him, taking a receipt. If the places are not inhabited, put them in remarkable situations, where they will be secured from weather and destruction; or, still better, send them along with your reports and their description, under your seal, to the Governor-General of Irkutsk.

You are likewise to make, if possible, circumstantial descriptions of the quality and use, and even drawings of the most curious productions of nature; you are to enquire accurately about the number, strength, natural dispositions, manners, and occupations of the inhabitants of unknown places; likewise order to be made vocabularies of their language, after the model given you; endeavouring to express as nearly as possible the pronunciation of their words in Latin and Russian characters. Lastly, you are to procure, (or, if that be not possible, to get painted, or describe) the furs, dresses, arms, and manufactures, of such nations.

ARTICLE III.

Upon your arrival at Yakutsk, you are to apply yourself immediately, to execute what the Governor-General may think necessary to prepare for your further journey to Ochotsk; and during your stay there, by virtue of your open ukaze, which orders all Commanders and Gorodnitshi of the towns through which you pass, to give you all necessary assistance, you are to require abstracts of accounts to be

found in the archives of late navigators, and of all that can give information about your main business upon the Kovima, and round the coast of the Tshutski; and if you find by such lists or abstracts that there is any thing surpassing the extracts communicated to you at St. Petersburg, and you think them necessary, you may demand copies of them; and if there be any charts get them also copied.

Wherever you produce the open ukaze of the Governor-General of Irkutsk, you may permit to such persons as it regards to take copies of it, in case it should be necessary. You may, if you and the Governor-General should think it convenient to be done at Yakutsk, and not by preference at Ochotsk, Izshiginisk, or even the Ostrogs upon the river Kovima, pick out the necessary number of Cossacks, soldiers, interpreters, and guides, choosing preferably hunters, and such as are recommended for their skill and good behaviour, and who have been upon the Kovima; and of soldiers such as were formerly in garrison at Anadirsk, have conversed with the Tshutski, frequented their habitations and the environs of the Kovima, and the coast of the Frozen Ocean (some even were born among the Tshutski); with these people you may, in presence of the Commander of the town, either make an agreement, or pay them without agreement, double the sum that is usual there for people who are hired for a term to serve at sea; which they are to receive from the time you take them under your command, till you dismiss them at the close of the Expedition, or till their death, inscribing this pay in a particular official book; and you may promise in the name of Her Majesty, to such as offer themselves volunteers, that at the happy return from the Expedition they shall receive a gratuity of one year's pay, as received during the Expedition, for their service.

Following the example of your predecessor Captain Krenitzin, who was sent in 1764 to these seas, you may, if you think it conducive to the service, and for more expedition, which in all your proceedings is hereby much recommended to you, order at Yakutsk (as he did in 1765) rope work to be tarred, and provisions packed in bags and cases, each containing no more than two poods and a half weight; and when you have got the necessary quantity of provisions in readiness, send part of them off, under command of an officer instructed by you, and furnished with all necessaries, loading on each horse no more than five poods, on account of the many bogs, rivers, and mountains, which are to be passed. Yourself may follow in the same manner with the rest of the provisions, stores, and men. To prevent hindrances on the road to Ochotsk, you may desire the Commandant of Yakutsk to send off an express, preparing necessaries for your journey.

ARTICLE

ARTICLE IV.

When you have furnished yourself with all necessaries at Yakutsk, you must make your dispositions to complete the transport which is already ordered before, of provisions necessary to maintain your party during your stay upon the Kovima, and the coasts of the Frozen Ocean. If you shall think it necessary to have some Cossacks to form this party, and if you can find such as have been before upon this river, or upon these coasts, you may make choice of such either at Ochotsk, or at Inzshiginiski Krepost.

ARTICLE V.

Lastly, in order that you may best employ your time, endeavour to arrive at Ochotsk at the same time nearly with your subalterns, to choose there the sailors and Cossacks who are to follow your Expedition by land and by sea. You must also choose, from among the pilots of that port, two or three who have sufficient knowledge of those seas, and whose service you shall think most conducive to the success of your navigation. On your recommendation, they will enjoy the same advantages as the rest of your Command. Each of them is to select for his assistant one of the Utshenicks of the Navigation School of Ochotsk.

At Ochotsk you are to make all necessary preparations for the sea voyage prescribed hereafter in the 10th Article. In case not one of the vessels in actual service there should be safe enough for such a distant navigation, you must then take your measures for constructing two vessels of sufficient strength and convenience, to answer the purpose and preserve the healths of the crew. Of one of these vessels, at the time of navigation on the coast of America, you will have the command, and the command of the other will be given to the second in rank; for the safety of the crew, and the success of the navigation, depend on the vessels of the Commander in Chief being accompanied by another. In order to enforce their construction, orders will be given immediately to the Governor of Irkutsk, that the best ship timber to be found about Ochotsk should be prepared, and all stores got in readiness for fitting out one ship of eighty feet in keel, and another of smaller dimensions, by virtue of the open ukaze which the Governor-General of Irkutsk and Kolivan is to give. You are to demand from the Commandant of Ochotsk the necessary number of carpenters, and all requisite assistance towards constructing and fitting up your vessels. You are empowered to give the superintendence of the docks to one or more of your subalterns, and to your shipbuilder, in order that the building may be carried on with all possible speed,
and

and entirely according to your plan. You must likewise order at Ochotsk a certain number of posts of durable wood to be prepared, which are to be erected on such lands as may be newly discovered by you; these posts you will stow in your ship when you sail for America.

ARTICLE VI.

When you have made these preparations, and collected from the Archives at Ochotsk what information and journals relative to your Expedition may be found there, you may then without loss of time, with part of your Command, which you have chosen at Ochotsk, and with Assessor Patrin, proceed on the readiest way to the Kovima. It will be proper to go as lightly equipt as possible on board the vessel which sails in June or July with provisions for the garrison of Izshiginfk; at that place you will find the best Cossacks and soldiers for forming your party, as some of them heretofore composed the garrison of Anadirfk, and have had connexions with the Tshutski, and others were even born and travelled amongst them. With these you may march over to the river Omolon, down which you may float on rafts to the Kovima. Arrived at the Kovima, you are to make geographical and astronomical observations of the latitude and longitude of Virchnoi and Neizshnoi Kovimski Ostrog, and the mouth of the river; and to take an accurate survey of it, observing the soil and inhabitants of the adjacent country.

ARTICLE VII.

Having determined with all possible accuracy the situation of the Kovima, and described its course and the soil over which it flows, you are to endeavour, if circumstances permit, to make use of boats called Shitiki, constructed as strongly as possible, to coast along the promontory of Tshutski from the mouth of the Kovima to the East Cape. In case, however, the coasting by sea should be found absolutely impracticable, and the information received on the spot give you hopes of reaching it by land, you may then proceed thus to describe these coasts, going in winter over the ice. It may happen, that by these means you will discover islands or lands that may lie to the north of these coasts, and of Bering's Straits. You may continue your travels and enquiries, employing different means as far as circumstances, safety, and the good of the service, require. You are to make an accurate chart; lay down the remarkable places that appear; take views of the coast and remarkable objects; endeavour also to get as much information as possible of the country of the Tshutski, their strength and manners; and, wherever opportunity offers, to contribute by your behaviour to the subjection of this nation to Russia, and to the good opinion of the mild government to which they submit.

ARTICLE

ARTICLE VIII.

Whatever succeeds the trials on the Kovima, and from thence along the coasts of the Frozen Sea, may have, after having done all that it is possible to expect from your zeal, return from thence by the best route to Ochotsk, to finish there the last preparations for your navigation in the Eastern Ocean, to take command of the people, and of the ships built or chosen for the Expedition. To the officer who will have the command of the second ship you are to give the full complement of sturmen and sailors, instruments, ammunition, provision, and other necessaries for the service. This officer is to follow exactly your orders, signals, and instructions.

ARTICLE IX.

If on any unforeseen account the ships should not be in readiness, then you may, awaiting their being built, employ the spare time and your talents in useful discoveries, on the sea between the Kuril islands, Japan, and the continent of China, even the Corea; and endeavour to bring to perfection the charts of these almost unknown parts of the seas; for this purpose, you may employ any one of the packet-boats or galliots belonging to the government at Ochotsk, which you shall think fittest for the service, and part of your detachment. This secondary point, however, must not make you lose sight of the principal object of the Expedition, which you must endeavour exactly to fulfil.

ARTICLE X.

When your ships are perfectly loaded, armed, and provisioned at Ochotsk, you are, in company with your second vessel (also taking under your convoy the merchants' ships that choose), to sail in the most favourable time for doubling the extremity of Kamtschatka; you are to call at the port of Petro Pavlofsky, or at Kamtschatka, at whichever of the two the provisions mentioned in the 2d Article are collected. These, as also the Kamtschadals ordered there for the purpose, you will distribute to both ships; you are then to continue your voyage for surveying the whole chain of islands extending to America, or for the discovery of new ones.

You are to make it a principal point of your duty to draw up an accurate chart of these islands, determining their situation by frequent observations; and, endeavouring to get a knowledge of the best harbours, roads, &c. to be found on them,

them, you will extend these enquiries even to the coast of America; and chiefly direct your attention to the islands hitherto little frequented, and not well known, which lie along and south of the coast to the eastward of the island of Oonimak and the great promontory of Alaksa, which is part of the continent. Such islands, for example, as Sanajak, Kadiak, and Lefnoi, the islands of Shumagin and Toomanoi, seen by Bering and others.

During your navigation in these seas, if you should meet with other ships, under English, French, or other European colours, you are to behave in a friendly manner, and not give occasion for dispute.

ARTICLE XI.

Having usefully employed the summer in these enquiries, you may, at the setting-in of the stormy season in autumn, look out for a proper harbour, either in America, or on the islands lying in these seas, or in Kamtschatka, there to winter and refresh your men; and you may again continue your endeavours and enquiries when the favourable season returns.

ARTICLE XII.

As some indications observed by Captain Bering on his sailing towards America, and which were confirmed by the English Captains Clerke and Gore at their return from the Sandwich islands to Kamtschatka, give reason to conjecture that there are islands situated to the southward of the known chain of islands, and to the eastward of the meridian of Kamtschatka, between forty and fifty degrees of latitude, you may try, on your going, or in your return, to discover these unknown islands, and get information respecting them, for the good of the trade of Kamtschatka; not, however, losing too much time on these uncertain trials.

ARTICLE XIII.

You are authorised to make enquiries about such parts of the continent of America as former navigators could not well survey on account of bad weather; chiefly endeavouring to discover their best harbours, which may serve in time for opening a fur trade with the inhabitants of the Continent; and in all cases principally endeavour to get a knowledge of the different productions of the Continent, islands, and adjacent sea, as prescribed by the 2d Article.

ARTICLE XIV.

For this reason you are to give the naturalist, Mr. Patrin, whenever he requires it, full liberty, with necessary assistance, and furnish him with opportunities to do his duty; leaving him on shore as long as the service permits in such places as he may think worthy of observation, or sending to such places as he shall indicate. The observations, enquiries, and collections, which he will make in his way, you are to leave at his entire disposal till your arrival at Petersburg, whither he also is to return to deliver them.

With respect to every thing that regards the reports which you are from time to time to make during your Expedition, he may also avail himself of the same opportunities, and deliver you extracts and results of his observations, in the language wherein he may be able most clearly to express himself. If by any accident, or illness, Mr. Patrin should not be able to prosecute his researches, then you are to take care of his manuscripts and collections, sealing them up in the best condition till he recovers, or, if necessary, till your return.

ARTICLE XV.

On such coasts and islands as you shall first discover, whether inhabited or not, that cannot be disputed, and are not yet subject to any European power, you are, with consent of the inhabitants (if any), to take possession in the name of Her Imperial Majesty the Sovereign of all the Russias, of the places, harbours, and all advantages which you think useful, in the manner prescribed in the following Article.

ARTICLE XVI.

When you bring under Russian subjection newly-discovered and independent nations, or people, you are to observe the following directions. As such people have most probably never been insulted by any Europeans, your first care must be, chiefly to give them a good opinion of the Russians. On finding such a coast, island, or promontory, you are to send one or two baidars, with armed men, under command of an experienced sturman, with interpreters, and small presents with them. Let them look out for a harbour or bay to secure your vessels in; when such are found, take the soundings and go in; but if such harbour cannot be found, you may then send baidars, or boats, with part of your Command, on

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shore,

shore, to examine if there be inhabitants, forests, animals, &c. They are not to land all together, but leave a guard over the boats; and the landed party are not to scatter, but keep together. If there are inhabitants, they are to speak to them by interpreters, who are never to be sent alone, but accompanied by some men secretly or openly armed; for it has happened, that savages have killed or carried off interpreters, to the no small disappointment of the discoverers. The interpreter is to speak to them, as from himself, of your friendly intentions; to shew which, he is to give them choice of presents, entreat them in a friendly manner to accept of them, and invite the chiefs on board the ships; to flatter them, give them medals to hang about their necks (which are delivered to you for the purpose); tell them, that these medals are a token of the lasting friendship of the Russians; ask and take from them what they choose to give as the like token; persuade them to tell all their countrymen that the Russians wish to be their friends; enquire their name, and the origin or meaning of it; whether their population is numerous, particularly in males; ask concerning their religion; their idols (respecting which you must carefully observe that none of your Command go near or destroy them); their food and industry; where they travel, and by what means; how they call the places to which they resort, and on what point of the compass they lie, whether islands or continent; and when they point out the situation with their hands, observe secretly, but accurately, the situation of the compass, and note in the journal how far distant; if you do not understand their measurement, ask how many days' journey or voyage, that you may know how to keep your course, if you think it necessary to go there; also ask if there are on such coasts or islands any considerable bays; whether large ships with one, two, or three masts and sails frequent them, or whether such ships do not frequent their own or neighbouring islands, or coasts? If you see in their hands any article of European or Asiatic workmanship, ask whence they had it; make all necessary observations for the description of the place, and ask their permission to come often on shore; learn their custom of saluting each other, and salute them so when you meet. When they come to like you for your friendship and generosity, and you are sure that they are not subject to any European power, then tell them that you have a mind to look out for such other friends; and that they may permit you, as your friends in other places do, to erect a mark on some high place on shore, by which you may again find out the place where the friends of Russians live, and that this should be done, according to your custom, with ceremonies; when they give this permission, then order, upon one of the posts prepared at Ochotsk, marked with the arms of Russia, to be cut out letters indicating the time of discovery, a short account of the people, their voluntary submission to the Russian sovereignty, and that this was done by your endeavours under the glorious reign of the Great Catharine the Second.

You

You are empowered to name the islands and countries that you discover as you please, if they have no proper name. When the post is prepared, let the inhabitants know that you will come on shore to fix your mark, which you are to do with proper ceremony and precaution; after which make the inhabitants presents of small things which they like; and to the chiefs give medals, which they can hang about their necks; lastly, persuade the inhabitants, that if they choose to remain friends to the Russians, they should never permit either their own people or foreigners to dig out or spoil this mark, but preserve it entire, as well as the medals hung about their necks.

Such trivial proceedings of ceremony have always had good effects with savages, and conquests made by these means have always been the most lasting.

ARTICLE XVII.

On surveying the islands, coasts, and promontories, under Russian subjection, you must, besides the prescribed information, acquaint yourself as accurately as possible with the number of male inhabitants in such places, and begin collecting tribute from these people; but, in doing this, you are forbidden to use force, or even to revenge incivilities from savages; on the contrary, abstain as much as possible from manslaughter, even if they are so bold as to attack you, as the islanders of Alkutan, Oomnak, Oonalga, Accoon, and others, have often done to the Russian hunters without any provocation; in such cases, remonstrate with them through your interpreters; tell them, that they unreasonably attack such as wish to possess their friendship; promise and give them small presents; but order all your men to shew themselves to as much advantage as possible from a distance, to frighten them, and prevent bloodshed, which in such cases is almost unavoidable; explain to them, that, if they will not listen to your kind behaviour, you are provided with such terrible arms as at once will kill numbers of them, and which you will be compelled to employ if they will not be quiet; for it is impossible that there should be any other reason for their uncivil and unfriendly behaviour to Europeans, than superfluous precaution and fear on their side; and it is too often the fault of the adventurers, when they attack these people with fire and sword, and bring them to a kind of despair; on the contrary, humane and friendly behaviour keeps them quiet; it is, therefore, strongly recommended to you to proceed with them in this mild manner, and not to change your conduct till open and unavoidable danger compel you to shed blood; keep yourself in constant readiness, however; employing your arms only to frighten, and not to destroy, these unhappy creatures, endeavouring rather to take one of them alive; and such prisoner you may care for, make him presents, hang a medal about his neck, explaining to him, that by this you make him your friend, and will know him when he

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comes

comes to you again; keep him prisoner as short a time as possible; and, when you release him, give him necessaries, and persuade him to tell his countrymen of your behaviour to him, and that he may return to the ship with whom he pleases, without fear; promising him, then, presents of instruments for catching animals, or whatever he likes; and that he will be received in a friendly manner by all your people, if he only shews the medal about his neck.

When such person comes to your ship with others, tell him, through interpreters, that the same arms which were before so alarming to them, will, if they choose it, be turned into harmless thunder, and serve as a mark of joy for the return of their friends.

You may then present them with such things as are agreeable to them; treat them with brandy, sugar, or tobacco, which most of them are fond of; give them likewise traps and gins, small copper kettles, knives, needles, and nets, telling them the use of what they know not; and desire them to bring you furs, oil of animals, fish, or what they have; mentioning also, that when others come with such things, they will receive what they like. Having made them, by these means, desirous of visiting you, you lay a foundation for future collection of tribute; make them incline to trade, to be industrious in hunting, and more sociable; and thus you will fulfil a principal point of your commission, to the glory of Her Majesty, and your own honour.

ARTICLE XVIII.

Sailing along the above-mentioned islands, coasts, and promontories, which you are to describe, when you come to Cape St. Elias, you may there, in Her Imperial Majesty's name, declare yourself Captain of the First Rank; and having made on this Cape such observations as are enjoined for other places, if on your return, about the island Oonemak, or the point of Alaksa, such weather should set in as to render it unadvisable to keep the sea on account of an approaching winter, you may search for wintering on the islands of Oonalashka, the bay named by Captain-Lieutenant Levasheff the harbour of St. Paul's, or lie in the island Oonemak, in the sound opposite Alaksa, at one verst and a half distant from Alaksa; and if not this, then go into any of the bays on the coast of Alaksa, to the east or west, where, upon Captain Krenitzin's assurance, many fine bays may be found within 150 versts. There, choosing a safe and proper wintering place, begin immediately to build one or more huts on shore; use all manner of precaution against the scurvy, that you may not suffer as Captain Krenitzin did in wintering on this coast, who lost about sixty men in this disorder, and was reduced so low, that, had not Captain-Lieutenant Levasheff come with his people to his assistance, he would not have had people enow to manage

manage his ship. For your service on shore, you may take some guns, cartridges, and small shot; for the dreadful example of attacks of islanders upon the Russian adventurers, which they tried also upon Captain Krenitzin when he wintered at Oonemak, must make you as cautious as Captain Krenitzin was, but chiefly against their night-attacks; he had four posts for night watches; had guns and small arms fired at stipulated times every few minutes, to frighten the savages, who tried more than once to overcome the guard, and kill him, with all his people. You must also endeavour, for your security, by fair means and presents, to get the American chiefs to give you some of their children as hostages; to whom you will behave in a friendly manner; but do not take too many of them, that they may not incumber you, particularly if provisions should run short. It is true, their parents used to bring them victuals; but it may happen that they will delay sometimes, and then you must feed them on your own stock. You must order your Command, that such as have been lately wounded, or have some internal disorder, or such as have even long ago had the venereal disease, should not eat whale's flesh; for the wounds will open again, and the venereal disorder will be renewed within three days, as may be seen in Captain Krenitzin's journal.

When you are on the island Oonalashka, endeavour to describe the inhabitants of it more accurately, and enquire of their migrations or origin; why they call themselves Cogolach, as those of the island of Oomnak call themselves Kigigoos, and those of Alaska Cartagaeguk; for the name of Aleutes given to these islanders by the Pilot Nevotshikoff, was taken by him from the name of the islands lying near Kamtschatka. Also, when on the island Oonemak, look (for curiosity's sake) to see whether the wooden cross with a copper crucifix fixed in it, erected by Captain Krenitzin near his winter mansion, be still existing. In a cut in this cross, look for a paper left by him; it will serve you in your intercourse with the islanders.

ARTICLE XIX.

If, during your navigation, it should be necessary to repair your own ship, or if any accident should render it unserviceable, then you must go on board the ship commanded by the second. Taking yourself the command, pursue in it your voyage and observations; in like manner, if the same should happen to the ship of your second, take him and his complement of men on board your own ship; for this reason, the officer commanding the said ship shall be enjoined in his particular instructions never to separate, or stay behind you, excepting at small distance, or by your express order; and that, should this happen in a storm, he shall endeavour as soon

soon as possible to rejoin. For greater security, you must fix frequent rendezvous, that, in case of separation, you may more conveniently join; and you must fix night and day signals for different accidents during your voyage. Should illness or other causes prevent your doing your duty, your second is to take the command, and fulfil the tenor of your Instructions, of which he shall have on board his vessel a copy signed by you, which you are to give him at your sailing from Ochotsk.

ARTICLE XX.

As it frequently happens in those seas, that in the month of October heavy fogs appear, which make it almost impossible to sail without danger of losing yourself, as it happened in 1767 in Captain Krenitzin's Expedition with all the ships, and particularly to the ship commanded by the Sturman Duding, which was wrecked on the 7th Kuril island, called Sialhkuta, where not only the ship, but almost all the crew were lost; you, therefore, and the Commander of the second vessel, must keep a good look out, particularly in unknown places, that no misfortune may happen to the ship or to yourself; which will be a loss to the Treasury, and a hindrance to Her Majesty's intention.

ARTICLE XXI.

In all that relates to the service of Her Imperial Majesty, you are to conduct yourself as a good and experienced officer; and, as well as your subalterns, endeavour to deserve the graces received, and future promises; for this reason you are to give your subalterns, whenever you employ them on separate services, clear and determined instructions, agreeing with the general instructions given to you; and oblige them thereby, as you yourself are obliged, to be responsible for faults and omissions, made purposely or through neglect.

ARTICLE XXII.

Having finished your enquiries about the islands, &c. in a good time of the year, or if the state of your crew, vessels, and provisions, make it adviseable to hold out another year in those seas, then you may take your course direct to Bering's Straits, to perfect the knowledge that you will have of the Tshutski coast, and try if you can get by sea to the bay Tshaoon, or the river Kovima, if by your first expedition to the Kovima you shall not have acquired such perfect knowledge,

that all further trials may be useless. But should you find the passage to the Kovima in large vessels impracticable, then you may, when all that is prescribed to be done in the Eastern Ocean, and about America, is accomplished, reach a harbour on the Tshutski coast; and, if it promise success, land there with a necessary number of men and instruments, giving orders to the commanding officer that remains in the ships how long they are to wait for you (if you think it adviseable to keep them there), and that afterwards they shall return to Kamtschatka, or Ochotsk, where they are to expect your further orders. If the sea should be free from ice along shore, you may take some row-boats from the vessels, giving, however, some to the ships; or build there baidars from materials prepared before; by the help of which, sometimes by land and sometimes by water, you will try to get round to the river Kovima, laying down your route upon the chart, and making necessary observations, chiefly for determining what is not yet settled on the charts.

But if, after these trials to the north, you return yourself in your frigates towards Kamtschatka or Ochotsk, you may endeavour to make your return as useful to geography as possible, coasting round the bay of Anadir, or touching at such islands as you could not fetch in your first voyage.

ARTICLE XXIII.

At your arrival at the port of Kamtschatka, and afterwards at Ochotsk, you have to return the Sturmen, Cossacks, Interpreters, and Kamtschadals, to their respective commands and places of abode in the government of Irkutsk, with written certificates of their behaviour, and recommendations for what each deserves.

You will also deliver your vessels, stores, ammunition, and provisions remaining, by specification, against receipt, to the Commander of Ochotsk; and if you can spare some instruments, without hindrance to the observations you may make on your return, you may also deliver such against receipt for the future navigation of Ochotsk.

ARTICLE XXIV.

Having thus finished your Chief Expedition, and collected your Command that is to return to St. Petersburg, you are to make preparations without delay for your return, which make as useful as possible to the geography of the different parts of Siberia. With this view, you may send some of your subalterns with

with proper instruments on a different route; they might go with Mr. Patrin up the river Viliuie, and from thence over the river Neizhnoi or Pod-Kaminoi Tonguska, to the river Jenisei, to survey the natural curiosities unexplored in those parts. They would do service to geography if they could obtain some knowledge of the advanced point which stretches farther than any other part of Siberia towards the Pole, between the rivers Olenek and Jenisei, more especially between the Katanga and Taimura; it may be, besides, that you may have opportunities of determining or rectifying the longitude and latitude of remarkable places not specified in the list annexed; you will likewise survey remarkable rivers, which is not to be neglected.

ARTICLE XXV.

To conclude this Instruction, approved by Her Majesty, that nothing may be wanting to encourage your zeal, Her Imperial Majesty has been pleased to order the important trust to be laid on you, of making alterations in what is prescribed in the Articles, according to your judgment and circumstances, with the common consent of your officers; chiefly, however, when undoubted advantages may arise therefrom to the Expedition, for the good of the service and the Empire. This great trust will, doubtless, raise in your heart and thoughts a noble emulation of such great men as have to their honour been employed in like services as you are charged with; and will excite you to think only how you shall begin with zeal, pursue with good sense, and end with honour, this important charge.

ADDITIONAL ARTICLE

To the Instructions of Captain-Lieutenant Billings.

On the chart opposite the river Kovima, to the north from Bear Islands, is marked the coast, which stretches as a continuation of the Continent of America. This has been adopted from a chart sent by Governor Tshetchirin in the year 1764. A sergeant Andreeff saw from the last of the Bear Islands, at a very great distance, what they thought a large island, toward which they went with dog sledges on the ice, but did not arrive at it by twenty versts; they found fresh footsteps of a great number of people who had been that way in rein-deer sledges; but they, being few in number, returned to the Kovima. No later account of the large island, or continent, has been received; it is therefore thought necessary to make you observe this; as you will be on the river Kovima, and not far from
thence,

thence, it would be useful if you could possibly survey and describe, or at least get nearer accounts of the circumstances of this land; whether it be an island or part of the continent of America; if there be inhabitants, and how great a number; in general, make all such inquiries as are prescribed concerning newly-discovered lands. This, however, is so recommended to your observation, as not to intrude on your chief occupation.

INSTRUCTIONS

Who is ordered to accompany the Expedition destined for the Kingdom of the Frozen Ocean.

Her Imperial Majesty having been graciously pleased to appoint you in quality of Captain-Lieutenant Billings toward the Kingdom, the Eastern and Frozen Ocean; every exertion is expected from you, which your honour, and your zeal for the service which you profess, and for the service you are engaged in, can prompt. The more so, as Her Majesty, for your encouragement, has been pleased to give you one rank more than you now hold in the service of the empire, to take place from the day on which you join the Expedition; likewise a sum of money to defray the expenses of your equipment; and thereby pay during the term of the Expedition; in which you will certainly have opportunities of making discoveries, and rendering services, which will entitle you to the further protection of Her Imperial Majesty.

In order to give you a full insight into what is expected from you, Her Imperial Majesty has been graciously pleased to approve the following articles, to serve for your instruction.

ARTICLE I.

IV. No. VI. [c] The arrival of Captain-Lieutenant Billings at Ikroavik, you will pass from the service that you are now employed in, to the Expedition under his command, with

No. VI.

INSTRUCTIONS

FOR

THE NATURALIST, MR. PATRIN,

Who is ordered to accompany the Expedition destined for the Kovima
and the Frozen Ocean.

[*The Original in French.*]

HER Imperial Majesty having been graciously pleased to appoint you in quality of Naturalist, on a voyage of discovery about to be undertaken under the Command of Captain-Lieutenant Billings toward the Kovima, the Eastern and Frozen Ocean; every exertion is expected from you, which your honour, and your zeal for the sciences which you profess, and for the service you are engaged in, can prompt: the more so, as Her Majesty, for your encouragement, has been pleased to give you one rank more than you now hold in the service of the mines, to take place from the day on which you join the Expedition; likewise a sum of rubles to defray the expences of your equipment; and double pay during the term of the Expedition; in which you will certainly have opportunities of making discoveries, and rendering services, which will entitle you to the further protection of Her Imperial Majesty.

In order to give you a full insight into what is expected from you, Her Imperial Majesty has been graciously pleased to approve the following articles, to serve for your instruction.

ARTICLE I.

Upon the arrival of Captain-Lieutenant Billings at Irkutsk, you will pass from the service that you are now employed in, to the Expedition under his command,
with

with which you are to continue so long as it lasts, and with which you will return to St. Petersburg; where you will give up your journals, observations, and collections, together with such specimens of natural history as you may have collected, to the department which Her Imperial Majesty will name for their reception.

ARTICLE II.

You are to follow the Commander of the Expedition in all his journeys by land and voyages by sea, beyond the river Lena; and you will assiduously observe all that is prescribed in these instructions; particularly in those parts of Siberia, as well as coasts and islands, which have never been visited by naturalists; such as the banks of the Kovima, the coasts of the Frozen Ocean of the Pacific, and Kamtschatka, and the islands you will there touch at. You will keep an exact journal of the voyage, together with a topographical description of the countries that you are to pass through, their rivers, lakes, and mountains; the productions in the three kingdoms of nature, and the inhabitants. You will also make meteorological observations, and remarks upon the several properties of the countries that you may visit, from the best intelligence you can collect.

ARTICLE III.

You will describe in a very particular manner the extent, connexion, and direction, of the chain of mountains; their shapes, superficies, declivities, and heights; the rocks or soils of which they are composed; the strata that they contain, and their direction; craters, remains of extinguished volcanoes, and such as are actually burning. You are to collect specimens of all sorts of rocks, earths, petrifications, lava, fossil, remains of animals, minerals, salts, and sulphurs; carefully numbering them, and noting the spot where found; also collect all remarkable stones and pebbles brought down by rivers, or thrown up by the sea, as well as such as may be in use by the inhabitants.

You will describe the surface of the country, its irregularities, and the layers of soil found at different depths; the situation of the country, whether low or elevated; woods and underwoods, animals, birds, marshes, lakes, rivers great and small, the nature of the waters, especially if they appear to have any particular qualities, the fish found in them, and every other remarkable production.

ARTICLE IV.

With regard to the people that you may visit, you will observe their dispositions and different corporeal qualifications; their government, manners, industry, ceremonies, and superstitions religious or profane; their traditions, education, and manner of treating their women; useful plants, medicines, and dyes; food, and manner of preparing it; habitations, utensils, carriages, and vessels; manner of life and economy; their modes of hunting, fishing, making war, and treatment of domestic animals; likewise languages, of which you will collect vocabularies, according to the plan sent with the Expedition, marking the pronunciation according to the Latin orthography. You will also try to procure the dresses, ornaments, instruments, and arms of these people, or cause them to be drawn. You will likewise make descriptions of tombs and other monuments of antiquity.

ARTICLE V.

You will particularly attend to trees, shrubs, land and water plants; preserving as many specimens as possible, particularly of any that are extraordinary or new; and you will employ your leisure time in making complete descriptions of such specimens; noting the season of their growth, flowering, and maturity. You will lose no opportunity of remarking most minutely such as may be of benefit to society, and which you may discover to be of use as food for man or beast, or applied as a remedy for any disorder; the manner of preparing dyes, stuffs, or skins. You will collect specimens of woods, barks, gums, resins, remarkable fruits, bulbs, and roots; as also every thing that may be cultivated in the gardens of Europe, noting the provincial and natural names.

ARTICLE VI.

You will collect, and cause to be stuffed or otherwise preserved, all extraordinary quadrupeds, birds, fish, amphibious animals, insects, shell-fish, or zoophytes; observing as closely as possible their habits, food, propagation, sounds, migrations, and habitations, as well as the mode of catching them, with the instruments and stratagems made use of for that purpose. You will also collect as many species of birds' eggs as possible. Quadrupeds and birds of different genders and ages are to be stuffed; fish, amphibious animals, and zoophytes, to be preserved in spirits of wine; insects, shells, and dried productions, fixed or packed up in cases made for that purpose.

ARTICLE

ARTICLE VII.

Meteorological observations, particularly those with the thermometer and barometer, demand your strictest attention; but most so in the places where you may winter or stay any time. You will form tables of these observations in the usual manner, noticing all remarkable phenomena, such as Parhelii, Aurora Boreales, and their concomitant circumstances; observe the congelation of mercury in different manners by natural and artificial cold; and determine by the spirit thermometer the true point of congelation. The altitude of different mountains may be determined by corresponding barometrical heights.

Although the predominant or variable winds, tides with their changes and directions, currents, and other nautical occurrences, are the more particular business of the Commander, you will not neglect to make such observations as you can, and note them in your journal.

ARTICLE VIII.

You will inform yourself of all national illnesses, especially endemic or epidemic, which exist in particular latitudes, or among particular nations; the distempers of domestic animals and horned cattle; and the remedies most in use to prevent or ease them.

ARTICLE IX.

You will be careful in preserving the natural curiosities that you may collect, numbering them, and keeping a catalogue containing the places where found, with descriptions and other observations; or all this may be expressed on each label. The stuffed birds or animals must be carefully dried, and smoked with sulphur, before they are packed up; the boxes or packages dried and smoked in like manner, and the cases covered with pitch and with leather. To every article likely to be spoiled by insects or damp, particular attention must be paid. When the Commander makes his reports, you will also send your observations, and such collections as are convenient; the others are to remain in your custody till your return to St. Petersburg.

ARTICLE

ARTICLE X.

You may require from the Commander of the Expedition such assistance of men, horses, instruments, and money, as may be necessary for your physical operations; and when your presence is not necessary with the Expedition, you may make excursions, with the Commander's consent, into the neighbouring country, where you may expect to meet with objects worthy of your remarks, either physical or historical. You will receive every assistance for this purpose from the Commander of the Expedition; and the draftsman may accompany you if he be not employed on more important business.

(Signed) P. S. PALLAS.

No. VII.

EXTRACTS

AND

SUPPLEMENTARY OBSERVATIONS.

The following Remark was made in Captain Billings's Journal, by his order, while at Oonalashka in 1790, on the Island Sithanak.

" IN consequence of complaints made to me in form, upon my first arrival at
" Ochotsk, by several people who were sent by Government to collect tribute of
" the Aleutan islanders, against the hunters, for cruelties to the natives, I repre-
" sented the same, and received a private Mandate from Her Imperial Majesty,
" ordering me to inspect the behaviour of the merchants and hunters in these parts.
" I have, in consequence, made it my business at Sithanak and Oonalashka to make
" enquiries into the treatment which the natives receive from these people; and
" have been, as well as every gentleman on board, an eye-witness of the abject
" state of slavery in which these unfortunate islanders live under the Promysh-
" lenicks (hunters). The company now at Oonalashka consists of twelve Russians
" and one Kamtschadal (their vessel is in the straits of Alaksa or thereabouts). These
" people employ all the men of Oonalashka and Sithanak in the chase, taking the
" fruits of their labour to themselves, and not even allowing the natives necessary
" clothing. There is, therefore, no name so dreadful to them as that of Peredof-
" shick (the leader of a gang of hunters). Upon the arrival of their vessel at any
" place where they purpose making a stay, they haul her on shore; immediately
" send the natives out on the chase, even to the farthest of Shumagin's islands;
" and then take by force the youngest and most handsome of the women for their
" companions.

" If another vessel arrives, they unite their companies, or else the stronger
" party takes the natives from the weaker. They inflict on the natives what
" punishments they please, and are never at a loss to invent a cause."

TRANSLA-

TRANSLATION

Of a part of the Journal of one of our Russian Officers while at Oonalasbka in 1790.

“ The company of hunters now here make their boast that they clothe and feed
 “ the islanders; which they do in the following manner: The natives, being under
 “ their controul, are sent out in parties to chase sea animals and catch fish. The
 “ produce of the chase is delivered into the Company’s stock, out of which the
 “ natives receive an allowance. Such of the inhabitants as are too infirm or too
 “ young to be sent out on aquatic excursions, are employed in domestic drudgery,
 “ and digging edible roots; while the women are occupied in making and mending
 “ clothing from the inferior skins of animals and of birds.”

“ The hunters were accustomed to act as follows: Upon the arrival of any
 “ vessel at an inhabited island, the Peredoffshik sent an armed boat to the habitations,
 “ to take from the natives all the furs and valuable articles that they possessed;
 “ and, if the least opposition was made, they were silenced by the muskets of the
 “ hunters. Wives were taken from their husbands, and daughters from their
 “ mothers; indeed the barbarity of their subduers to the crown of Russia is not
 “ to be described. They used not unfrequently to place the men close together,
 “ and try through how many the ball of their rifle-barrelled musket would pass*.
 “ Nor were the hunters more kind to their own brethren; for if two parties in
 “ different interests met, they fought together for the possession of the natives, or
 “ formed themselves into one company.”

A Bird of the Auk kind caught at Oonalasbka.

Bill orange colour, very little curved; both mandibles tipped and edged with black; the nostrils long and narrow, running parallel with the mouth; an elevation upon the nostrils of a light green colour, edged with black. The feathers commence at the base of the bill, and are of a dark ash, which is the colour of the head and neck. From the upper part of the eye, along the head, to the back of the neck, is a row of fine white fatin feathers; and another row, broader and shorter, leads from the corners of the mouth. The eye of a pale yellow, the pupil being small and of a very dark blue. The back, scapulars, coverts of the wing, and tail,

* Gregory Shelikoff has been charged with this act of cruelty; and I have reason to believe it, from the testimony of several Russians at Ochotsk, corroborated by some of the natives of this island.

are dark, with a paler edging; primaries something lighter; throat a light colour; breast and belly a dirty white; the fore part of the legs of a livid colour; the hind part, web, and claws, black, with three toes. It resides about the rocks and coast of Kamtschatka, and upon all the Aleutan islands, and is about the size of a black-bird.

Fish caught at Oonalashka, March 23, 1792.

Angling among the rocks, the hook baited with the common edible muscle, I caught a fish called by the Russian hunters *terpug* (*rasp*). It is sixteen inches long, and shaped like a mackerel. The head of a dark olive, with scarlet spots. Behind each eye, on the top of the head, is a palmated fleshy crest half an inch long, and one-eighth broad. It has five branchiostigous rays, prominent and strong; these and the lower part of the head are of a lively scarlet. The colour of the body of the fish is dark olive, with blotches of scarlet, and a dull red; two dorsal fins spotted in the same manner, and united at the extremities; both rounded; the first consists of twenty rays, the second of twenty-two. The pectorals large and rounded, eighteen rays, spotted at the dorsal, but edged with scarlet, as is also the anal fin, consisting of twenty-two rays; ventral five rays; tail rounded; breast and throat a lively scarlet. On each side of the breast is a line of small dots, reaching between the ventral and pectorals, turning up to the latter, and extending in a strait line to the tail, very high on the back; a similar line encircles the dorsal fin, there is another half an inch below it, and one near the ventrals. The flesh, gills, and inside of the mouth, are of a lively light blue; inclining to green; when boiled it turns white, but the bone retains somewhat of this colour. The scales are small and rough, whence it derives its name.

The same day I caught another fish, about seven inches long; head large, but short; the sides of the bony plates and head replete with small pits; large mouth, with sharp close-set slender teeth. The dorsal fin reaches from the hind part of the head to near the tail, which is rounded. The fish is very smooth; its colour a dark olive marbled with dusky green, edged with a dull red, forming broad bars that cross the lateral line, which is straight.

A very black fish resembling a carp I frequently caught lurking under stones; as also the father-lasher. The armed bull-head also was caught in our net, and the spotted blenny.

I took one fish which adhered very fast to a rock by means of a sucker on its belly. It is very short and thick, and the flesh flabby; but it boiled firm.

I also found a fish lying dead on the beach, about five feet long, round, and shaped like an eel, with a large mouth, and very sharp teeth.

The other kinds of fish are, halibut, cod, thornback, and several species of salmon.

THE END.

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Sauer, Martin

An account of a geographical and astronomical expedition to the northern
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